Introductory Address
ON THE
METHODS, OBJECTS AND AIMS OF STUDY.

Delivered at St. Mary's Hospital at the opening of the Medical Session on Oct. 3rd, 1892,

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IT has fallen to my lot to-day, in accordance with our custom here, to address a few words of welcome, counsel and encouragement to those of you who are now entering upon your medical studies in this school. Diffident as I feel of my power to do justice to the present occasion, especially when I reflect upon the names of those who have preceded me in the performance of this function, yet in one respect I feel no hesitation, and that is in the heartiness with which I congratulate you on your choice of a profession, and in the welcome which, in the name of my colleagues, I extend to you upon your entry into this school. Rightly worked at, the profession that you have chosen is indeed a noble one. Of it Thomas Carlyle has written: "What profession is there equal in true nobleness to medicine? He that can abolish pain and relieve his fellow mortal from sickness, he is indisputably the usefullest of men. Him savage and civilised will honour." If, however, you are ambitious of riches or of ornamental worldly honours, then you have not chosen a profession which is likely to bring you a plethora of wealth or titles; but if you are looking to the higher aim of human life the desire to minister to the well-being of the human race, at the same time that you earn for yourselves a fair though modest livelihood, then you will not, I think, ever have cause to regret your choice. In no profession are there such great and constant opportunities of doing the good work of relieving suffering and soothing sorrow as in ours, and in the pursuit of this activity for the happiness of others you will attain to the best form of happiness for yourselves—a reward far better than those of riches or of titles. I propose this afternoon to deal with the objects of your studies and work by briefly considering (1) the methods you must adopt here for the acquisition of the requisite education and training that shall fit you for the subsequent discharge of your professional duties as medical men; (2) the opportunities that are offered by your work for the moulding and development of the moral character, so as to fit you for the discharge of the ethical duties both of men and physicians; (3) the means offered you for the training of your powers of observation and thought, so that those of you who rightly avail yourselves of the opportunities may go forth fitted to become explorers and interpreters in the fields of medical science.

With regard to your studies here, let me say at once that though but average mental power and ordinary ability are all that are requisite for the successful prosecution of your studies, for the passing of your examinations, and for the after practice of your profession, yet the one thing that is indispensable is industry. I must honestly impress upon you that it is a laborious career which you have chosen, and one to which you must come with the plain, straightforward object of bringing all that science can teach you to the relief of a suffering humanity. Without determined, steady application no success of any real worth can come to the medical student of the present day. In your work you will find that the race is not always to the swift, and that it is not so much the possession of speed as of staying power that will serve you best in the career that is now before you. If any of you have come here with the idea that the life of a medical student is to be one mainly of pleasure, or with the prospect that you will be able to devote a large share of your time to the gaieties of London life, and a small share of your time to work, I say to such—at once abandon that idea, or at once abandon a career for which you can never be fitted. There is no place for the Bob Sawyer here; the days of walking the hospitals are over and past; these are the days of working in the hospitals. Once more let me repeat that steady application and perseverance in your work are the main factors for success here; the possession of exceptional ability is not necessary, but should there be, as I trust there are not, any now joining who are contemplating a life of indolence and pleasure, to such I would say at once and emphatically—abandon hope all such who enter here. I beseech you at this the outset of your medical careers to consider carefully and earnestly the responsibilities that you are incurring and will have to incur. Your subsequent professional careers and actions will be in great measure the result of the industry you display during the next five years. I beg of you to so direct your actions that no apathy in your work, no carelessness in your studies, no neglect of the business of your profession, may be the cause of your ever failing in the future to administer rightly the relief to suffering beings, or you will assuredly have to bear with you, through life, the burden of a conscience that will be constantly reminding you of precious lives lost through your want of skill, of misery brought to many a home as the result of your neglect, of the conversion, by your own fault, of capabilities entrusted to you of doing good into opportunities of doing evil.

I address you as one who has comparatively recently travelled over the part of the road you are now about to take, and as one acquainted with its windings let me point out to you the direction in which you should travel and some of the difficulties that have to be overcome. Do not think that I am contemplating the wearying or the worrying of you with the experiences of my life. I am not, and for the good reason that I am fairly convinced that it would not be of the least use to you. Experience you must acquire for yourselves, and the higher the price you have to pay for it, the greater the suffering through which you learn the more valuable will it be in aiding you to guide and direct your lives. It is doubtless a wise dispensation that individuals profit but little by the experience of other individuals. To those of you coming straight from school or college there will open up what I venture to prophesy will be a delightful change in the nature of your work. At school and college education consists too much in the study of the writings of the past, with a corresponding neglect of the study of the marvellous works of nature. There the ornamental has been given precedence to the useful; here you will find the order reversed. I do not wish to underrate the value of a classical education; it is doubtless, as society goes, the hall-mark of a certain social rank, but I do regret that in our preparatory schools and universities scientific education and training are so subordinated to that which is used more for extrinsic effect than for intrinsic aid in the actions of life.

At the outset of your medical studies you will probably be surprised, and perhaps alarmed, at the diversity of the subjects with which you have to form some acquaintance, and with the wide range of medical education of the present day. The relationship of some of these subjects to your future work and their direct or indirect utility in the practice of your profession may not at first be apparent to you. Let me assure you, however, that the curriculum of study and work which you have to pursue, and which has been mapped out for you with much forethought and care is one that well comprises what is necessary for your training and future success. In the study of those departments of science which precede the direct study of medicine and surgery due regard has been paid to the relationship they bear to medicine and surgery, and though this relationship, and therefore their utility, may not at first be apparent to you, yet eventually you will surely recognise the mutual connexion existing between the various branches of your professional studies. Take, for instance, the subject of chemistry. No one, I presume, will deny that chemistry is a most important and useful science; but the question to you is not whether chemical knowledge is of worth, but what is its relative worth. Remembering how the time for the acquisition of knowledge is limited by our "span-long lives," we must necessarily be careful to employ that time to the best advantage, or, to use an expression of Bacon's, "we must determine the relative values of knowledges." This, I claim, is well done for you in the curriculum of work that has been drawn up for your guidance, and which you will have to faithfully follow here. Although we speak of physics, chemistry, biology, physiology &c. as sciences, do not think that they are distinct branches of knowledge, having no relation to each other. In nature there is no distinction between the so-called sciences; the distinction is a purely artificial and conventional one. It would be better that they should be spoken of as branches of science, for by science is simply meant organised knowledge. The study

of physics, chemistry and biology will prepare the way for, and lead you up to, the study of physiology, and so you will obtain the firm scientific groundwork for the study of the disorders of the human body, which is to be the field of your ultimate special work. Our forefathers adopted an entirely different system of medical training. With them a period of pupilage with a medical man preceded the studies of the medical school; so that the student of those days was first brought face to face with disease before he had learnt the facts and phenomena necessary for the comprehension of it. That, I venture to think, was a most baneful system; it was the building of the house on the sands of empiricism, instead of its erection on the rock of scientific knowledge.

Here let me point out to you that the training through which you have to go to thoroughly fit yourselves for the relief of suffering is one excellently adapted to intellectual development. In the medical school and in the hospital you will be brought face to face with facts, you will be taught to search out and learn for yourselves the truths of nature, and proceeding step by step in your observations, from simple to more complex phenomena, you will, by the inductive method of reasoning, learn the laws which regulate the order of nature. Nature does not deceive those who patiently and laboriously study her immutable laws, though from those who run counter to them she exacts a sure and certain retribution. At this the outset of your medical careers you are doubtless making good resolutions; you are doubtless determining to earnestly apply yourselves to the work that lies before you. That is well. But remember to carry those resolutions into effect. Bear in mind the words of Carlyle: "The end of man is an action and not a thought." I do not wish to underrate the value of good intentions—they are most valuable if followed by good actions. "Good intentions are at least the seed of good actions, and every man ought to sow them." It has been said that man has two lives—that of action and that of thought. Learn therefore the blending of thought and action in the practice of your profession; they are not separated, but related, for action is concrete thought. There are but three classes of men—the retrograde, the stationary and the progressive. To which of these will you belong? It is no use saying that during your first year here you can take it easy and enjoy yourselves, and that you will make it up later on. You never will make it up later on. I would therefore impress upon you at the outset the value of a proper method of disposing of both time and energy and advise each one of you to adopt some method or plan in your work. Commit to writing a time-table for your daily duties both here and at home and rigidly adhere to that time-table. Let your reading time for each evening be arranged so as to rightly apportion your hours of work to the different tasks and subjects. You will not only by such method get through more work than you otherwise would, but your knowledge, if thus systematically acquired, will be more accessible to you when required for use. A writer of distinction says that there are two species of so-called practical minds. One sort of mind is constructed according to the carpet-bag pattern, where nothing is put in any order, and, to find any article, everything else has always to be turned out. The other is the museum sort of mind, in which every specimen is arranged and labelled in proper sequence, and whatever is wanted is always easily found. As a finish to the daily work there is a very useful rule recommended by Pythagoras—to review every night before going to sleep what we have done during the day. This daily settling of the debit and credit account will give you a clear idea of how you stand. But do not devote all the time given to study to the mere learning and ingestion of facts; some part of the time should be devoted to the careful consideration of them—to the processes of mental digestion. The acquisition of knowledge is not everything—what is more important are the digestion and organisation of knowledge, so as to adapt it to the practical uses of life; and for this digestion and organisation time and spontaneous thinking are required. As Humboldt remarks, "the interpretation of nature is obscured when the description languishes under too great an accumulation of insulated facts." Side by side with the acquisition of facts should go the cultivation of the power of observation. I cannot too strongly impress upon you the importance of observing for yourselves, and you will have manifold opportunities of doing so if you will only avail yourselves of them. The accumulation of the occurrences that you observe will constitute your experience, and from such experience, aided by your reasoning faculties, will issue your actions. The more you observe the more enjoyable will life, in the fullest sense of the term, become. But in connexion with your studies you will necessarily find the acquisition of many of the details wearisome, and you may be tempted to regard some of those details as useless and trifling. It is not so.

> "Think nothing trifling, tho' it small appears;
> Sands make the mountains, moments make the years,
> And trifles—life."

Schopenhauer says: "A man shows his character just in the way in which he deals with trifles—for then he is off his guard." Do not be either surprised or dismayed if you at times feel a spirit of despondency arising at the thought that apparently you are making no progress, that however hard you may work little or no headway seems to be made. Remember that it is frequently impossible to detect your progress day by day. The knowledge is surely being acquired, and, if you persevere, I venture to affirm that no one will be more surprised than yourselves at the result of your efforts. Honest work is of all things the most ennobling, and the greatest stimulant and the fullest delight in life come from the struggle with and the overcoming of difficulties.

> "Strive, endeavour; it profits more
> To fight and fail than on Time's dull shore
> To remain an idler ever.
> For to him who bares his arm to the strife,
> Firm at his post in the battle of life,
> The victory faileth never."

Moreover, let me remind you that the display of interest in your work and the energetic discharge of your duties constitute a great encouragement to your teachers and furnish a direct stimulus to them in their work of instruction. Nothing is more discouraging and depressing to a teacher than to see a student sitting in the lecture theatre or class-room looking bored and uninterested, and taking no notes—perhaps not even possessing a note-book. It requires no great gift of prophecy to foretell that man's future—there is written upon his brow failure in his examinations, failure in life. Bear in mind therefore that amongst the influences at work in a medical school and hospital like this, the influence for good or ill is not only from the teacher to the student, but that your lives affect and react on ours. We are, after all, only students together, the older ones helping the younger ones, the younger ones encouraging by their enthusiasm and earnestness the older ones. "It is by teaching that we teach ourselves, by relating that we observe, by affirming that we examine, by showing that we look."

Among your various studies, do not neglect one which is most important—the study of the human individual. Symptoms of disease must not be studied in an isolated manner, they have to be considered in connexion with the constitution of the individual and the circumstances under which they arise. Your success as doctors will not consist merely in the interpretation of symptoms, but in your recognition and appreciation of the peculiarities and idiosyncrasies which go to make the individual, and in your powers of adapting yourselves to a right comprehension of the different individuals with whom you have to deal.

The new five years' curriculum which has come into force this year will, I think, prove a boon to you, in that it will enable you to do thoroughly what it was almost impossible to accomplish under the four years' curriculum. With the exception of biology, no new subject is interpolated into this extended curriculum, but one most important and useful reform has been introduced, and that is that a certificated course of study at a fever hospital is now insisted upon as part of the curriculum. I rejoice at the institution of this reform, for it is most essential that you should obtain a practical knowledge of the principal infectious diseases before you go into practice, not only that you may diagnose them correctly and by their early recognition take means to prevent their spread, but also because under the Infectious Disease Notification Act that came into force in 1889 a power is placed in your hands which is almost the power of the *lettre de cachet*. There is one other reform which I trust we shall ere long see instituted, and of which those of you who are now commencing your curriculum will in all probability be able to avail yourselves five years hence, a reform which is sorely needed as a matter of justice and equity to the majority of London medical students, and that is the establishment of a university in London where the degree of Doctor of Medicine will be within the reach of all medical students, and where it can be obtained by a less rigorous series of examinations than the present somewhat

exclusive degree of the University of London. A Royal Commission has been appointed to recommend a scheme for establishing a new university, and I devoutly hope that their deliberations will shortly bear fruit.

So far I have referred only to your professional studies, but do not restrict your education to purely professional subjects and books. Let your reading be general, and through books cultivate the acquaintance of great minds. Just as by ascending to a height the view becomes broadened and the eye can take in so much more, so does general cultivation elevate the mind and give to it a broader and a grander view. Therefore fill up the leisure left by graver occupations with the different forms of lighter and pleasurable occupations, with the perusal of the works of novelists, of poets and with music. Do not crush beauty and poetry out of life. Allow the imagination and the emotions fair play. You will not be efficiently equipped for the discharge either of your professional or social duties if the acquirement of deep information on medical matters has been obtained at the cost of general culture in literature and the fine arts. Herbert Spencer says of the cultivation of literature and the fine arts: "As they occupy the leisure part of life, so should they occupy the leisure part of education." But however engrossed you may become in your studies, never lose sight of the necessity of carefulness of your health and of the need for daily recreation. The acquisition of knowledge is not the only thing needful. The first requisite to success in life is a healthy body, and the best brain is of little service unless there be sufficient vital energy to work it. Remember that success in the medical profession depends much on energy, not altogether on information. Never forget the great value of health as the chief and most important factor in happiness. In primitive times, when muscular power was the chief factor for success in life, the cultivation of the body was the main desideratum, and the cultivation of the mind was almost if not entirely neglected. Now the pendulum has swung perhaps too much in the opposite direction, and excessive devotion to mental education has resulted in a corresponding neglect of bodily education. We must thoroughly realise the fact that physical development underlies mental development, and that a high mental development can never be attained at the expense of the physical one. And here I am happy to say that at the medical schools recognition of this fact is well shown in the endeavour of our students to combine work with play, as illustrated by our various athletic and sports clubs. Some of the sports, however, such as football, cricket, rowing &c., are not immediately accessible, and therefore without the slightest intention of underrating the value of those sports, let me mention one which possesses peculiar advantages to the student residing in London and to the healthful influence of which, on my own life as a student, I can well testify—I refer to cycling. But I refer to rational cycling, not to the horrible exhibitions of cycling too frequently seen in our streets nowadays, not to the individual who, with crooked back and head dangling over the front wheel, tears along indifferent to the safety and comfort of others, and who is so aptly compared by the observant gamins of the London streets to a "monkey on a gridiron." I think too that it is time that we, as members of the medical profession, whilst advocating the immense benefits of athletic training, should raise our voices against the growing evils of athletic straining. A few days ago you might have read in the papers that a bicyclist rode 421 miles in twenty-four hours—that is, that, not allowing for any stoppages, an average pace of over seventeen and a half miles an hour had to be maintained for the twenty-four hours. What a frightful strain to subject the heart and vessels to, what a terrible overtaxing of the powers of the nervous centres, what a fearful price will assuredly have to be paid in the future for the vainglory of having established a *record!*

I have been a cyclist for sixteen years, and in my earlier athletic days I frequently associated with, and therefore had the opportunities of observing, young men who at that time stood prominent in the athletic world as champions and record-breakers, many of whom, alas, now sleep the long sleep, hurried prematurely to their graves by the insane desire for so-called fame of record-breaking and prize-winning.

I pass now from the question of physical training to say a few words concerning moral training. In the first place, with regard to your dealings with the patients in the hospital, be cheerful and kind in your manners to them, showing at all times that delicate consideration for the feelings of others of which poor and rich are almost equally appreciative. The manners and address that you adopt towards the patients here will be those that will in great part remain with you when brought in contact with your private patients later on. But especially endeavour to be cheerful. It appears to me that in these days of competition and hurry men and women do not sufficiently cull the little wayside flower of cheerfulness. It will make you and others the happier if you will stoop and pick it as you trudge along the highway of life. With regard to the selection of your companions here, be slow and careful in forming acquaintances, for the character of these will probably affect your whole future career. You will, I hope, form many strong and lasting friendships here, but above all make yourselves pleasant companions for yourselves. "What a man has in himself is then the chief element in his happiness," says Schopenhauer. Self-discipline and self-control strengthen the moral fibre; self-improvement means not only self-elevation, but an addition to what should be our highest ideal—the perfection of humanity. In addition to learning the cure of disease and the alleviation of pain you learn here the laws of health, and therefore you will know, or should know, how to shape your lives so as to best conform to those laws; and it is by so conforming or not to them that you will set an example, good or bad, to others in the conduct of their lives, for every man's life, directly or indirectly, knowingly or unknowingly, affects those of others. The medical man should be a moral teacher, showing by the example of his life the lives that others should lead, for to him is given in a very high degree the opportunity of influencing the lives of those of his fellow creatures with whom he is professionally and otherwise brought in contact. There is a constant struggle between the sensual and the spiritual sides of ourselves, between the desire to do that which merely brings ephemeral pleasure or gratification and between that which the prompting of the better instincts tells us to be right and good. The outcome of these struggles must determine for good or ill our characters; according to the side on which rests victory is the position that we take, high or low, amongst our fellow men.

> **"Our little lives are kept in equipoise**
> **By opposite attractions and desires!**
> **The struggle of the instinct that enjoys,**
> **And the more noble instinct that aspires."**

Remember always that it is only patient, hard work that can fit you for the discharge of life's duties—by such means only can you hope to attain to eminence in your profession. Do not think to ever attain it by some happy accident, by some stroke of luck. Believe not in luck, in chance. Those who ascribe the rise of an individual to luck do not think of or recognise the years of toil and self-denial, the struggles and the self-conquests, that have preceded the attainment of his present position. We should all endeavour to clearly recognise how great is the power which man may exert over his own destiny, the power as to whether out of himself he can raise a noble intellectual edifice or reduce himself to a moral and physical ruin. Do not delude yourselves, as so many do, by saying, "Circumstances have not favoured me; luck has not befallen me." Nothing of the kind!

> **"Man is his own star; and the soul that can**
> **Render an honest and a perfect man**
> **Commands all light, all influence, all fate;**
> **Nothing to him falls early or too late.**
> **Our acts our angels are, or good or ill,**
> **Our fatal shadows that walk by us still."**

Bad actions, though unseen, though unknown to our fellow creatures, are not without influence on our lives. Evil actions, even if counteracted by good ones, still leave their marks—they are indelible. Perhaps it is well so. The memory of past misdeeds may prevent their repetition. Let me tell you a simple little anecdote. A boy whose resolutions were good but whose actions were frequently perverse was told by his father to go and drive a nail into the door-post for every bad act he committed. He shortly came to his father and with a sorrowful face informed him that there was a crowd of nails in the post. "Well, my son," replied the father, "for every good action you do henceforth go and pull a nail out." Some time later the boy came to his father and said, "The nails are all out; but, father, the marks are still there."

I lastly have to say a few words as to the opportunities that will occur to you for the training of your powers of observation and of thought. The work, and especially the clinical work, that you will do here is so arranged as to stimulate thought and to promote the cultivation of independence

of judgment. Knowledge and intellectual cultivation should be acquired side by side. By knowledge I mean the mere possession of truths; by intellectual cultivation, the acquired power of applying those truths. At the present time I think we may fairly say that Voltaire's satirical remark that an apothecary is a man who pours drugs of which he knows little into a body of which he knows less does not altogether apply to the physician of to-day. We are day by day learning more of the relations of the organism to its surroundings, and instead of endeavouring, as in the past, to treat the organism quite independently of its surroundings, in the recognition that a disturbance of these relations means disease and that a restored harmony between them is health, we are rising to a juster conception of our duties as healers of disease. One of the chief hindrances perhaps to development in our profession is an undue respect for so-called "authorities in medicine." The only sure road to truth is devotion to independent inquiry; and here let me remark that medical science is, in my opinion, markedly different from many other sciences, in that the field of original observation and work is open to all members of the medical profession, high and low, from the hospital physician and surgeon to the humblest general practitioner. Each one may alike contribute in his own way, by careful observation of disease, his share of new facts, or the fresh application of old ones; each one may help to increase the store of human knowledge; each one may render some assistance in advancing our powers of usefulness to our fellow creatures; each one may, by adding his increment, however small, to our knowledge, help to demonstrate the truth of Bacon's aphorism, that the end of knowledge is the well-being of the human race. To do this you must acquire the habit of recording your observations and not trust to unassisted memory. When you meet with symptoms in a patient that you do not understand do not be in a hurry to explain them; wait till you have investigated their causation. "Wise men investigate, while fools explain." An anecdote is told of a young doctor who, in his out-patient room, was learnedly explaining to the students around him the reasons why the right eye of the patient before him was somewhat different from the other. In the midst of a most erudite disquisition on the obvious nerve lesion which was responsible for the greater size of the right pupil, and for its not contracting to light, he was quietly interrupted by the patient with the remark that the eye he was referring to was an artificial one.

Here let me say a few words as to the important bearing on medicine of a branch of science for which I must own a personal attachment and predilection. I refer to chemistry. I am well aware that many of you will not be able to give more than a small share of your time to the study of chemistry, but to those of you who can spare the time to acquire a more extended knowledge of that science I venture to assert that you will become possessed of a factor most useful in the treatment of disease and most potent in aiding the discovery of some of the hidden secrets of the causation of disease. I do not think it is too much to expect that in the future we shall ascertain exactly how drugs act; that in connexion with many diseases, and especially in the case of the infectious diseases, we shall discover the poisons produced within the human body to which the symptoms of those diseases are due; and that, having discovered those poisons, the method of destroying them or rendering them innocuous by antidotes may be found. To those of you who can rightly use it I think it will be found that the light of chemistry will illumine many a dark corner of the still unexplored regions of the continent of disease. Therefore, whether in the direction of the discovery of new facts or in the fresh application of old ones, strive at forging a few links in the chain of progress for yourselves and so leave some marks on life's highway by which you may be remembered when dead and gone.

Although some measure of success has been attained of late years in the treatment of diseases of the individual, yet a much greater measure of success has been obtained in the prevention of the diseases of communities; and in the future preventive medicine will doubtless attain to a much higher degree of perfection. Small-pox has by vaccination and improved sanitation become almost banished from the realm of disease, and indeed in its old virulent form is now in this country simply a matter of history. Cholera, on account of the sanitary and preventive measures we adopt, is unable, as you have recently been made aware, to gain any foothold in this country. I take it as a truism that the prevention of disease is a much higher and grander aim of medical science than its amelioration or cure. It therefore behoves us, in the furtherance of this enormously important work of preventive medicine, to look out that we are not left hopelessly in the rear by other countries, for to the advancement of what is so obviously of the greatest national importance a great obstruction has been offered in this country by what I am compelled to call the hysterical anti-vivisection movement. We, as members of the medical profession, are as much opposed to cruelty and to the infliction of unnecessary suffering on the lower animals as any members of the community, and I most thoroughly agree with the provisions in the Act of 1876, that painful experiments, with the rarest exceptions, must be made when the animals are unconscious under anæsthetics. I presume that even the most advanced opponents of so-called vivisection will agree that the lessening of the sum of suffering should be one of the highest aims of every human being, and if the abolition of much suffering and the saving of the lives of thousands of human beings can be secured even at the cost of the infliction of some pain on a few of the lower animals, is not such action not only justifiable but righteous? Moreover, the term "vivisection" is an erroneous one, and one that conveys an entirely false impression. The so-called vivisection experiments performed in this country are simply operations performed on animals, with the same skill, with the same antiseptic precautions, and with the same freedom from pain, as the operations practised on human beings, or else they consist of hypodermic injections which involve an infinitesimal amount of pain. The fact is that the utility and necessity for experiments and observations on animals cannot be rightly estimated by an unskilled public. I do not for a moment dispute that these sentimentalists are actuated by the most benevolent feelings, but I would ask them to direct some of their energy to the prevention of some of the cruel operations practised on animals to fit them for human food or labour, or to the altogether unnecessary and cruel suffering that is inflicted in the name of sport. If I, as a medico-legal expert and in the interests of justice, perform the almost painless experiment of injecting a poison into a mouse in order to observe its effects, the strong arm of the law can fall heavily upon me, although I am engaged in the vindication of the law; while at the same time the most horrible infliction of pain and suffering is permitted and even applauded at aristocratic pigeon-shooting matches, in pheasant preserves, in the hunting to death of terror-stricken foxes and tame stags; yea, in the last-mentioned instance it is even fostered and subsidised by the State. While these cruelties are allowed to continue the well-intentioned sentimentalists and opponents of so-called vivisection are straining at an infinitesimal gnat and swallowing a mammoth camel. Instead of impeding the advance of science, let them turn their attention to the suppression of this daily hecatomb of helpless animals, butchered to make an English holiday.

As you go through the course that has been arranged for you, and as you gain an increasing knowledge of the marvellous organisation and working of the human body, the more you learn, the more you will find that we are still unacquainted with what actually is life, that the sovereign reigning over all these states, the soul, is to us intangible, invisible. The more you learn, the more you will recognise that "there are more things in heaven and earth than are dreamt of in our philosophy." I deny the reproach that has been uttered, that where there are three physicians there will be found two atheists. To my mind it implies a very superficial acquaintance with science which can lead men to dogmatically assert that life is nothing more than the outcome of a series of chemical explosions taking place in certain cells, as if man were omniscient. To such the words written by one of the world's greatest philosophers will apply—"Though a small draught of philosophy may lead a man into atheism, a deep draught will certainly bring him back again to the belief of a God." Perhaps no other profession than ours better teaches and inspires the true religious feeling "that holiness is an infinite compassion for others; that greatness is to take the common things of life and walk truly among them."

Now my task is finished. I have endeavoured to give you, in a manner I know all too imperfect, a few words of encouragement and counsel at this the outset of your careers. Aim at aiding the great work of medical progress, aim at making your lives such that you will be ready, when the call shall come, to pay back again the talents you received, but ready also to pay them back with

usury. Believe me, if you will start with noble aspirations and will honestly endeavour to act up to them through life, then a successful, useful and honourable career is assured to you; and at the close of a life so spent, when the sun is setting and the twilight is gathering, there will come to each one of you the inestimable satisfaction of hearing the voice of conscience, the voice of God, saying, "Well done, thou good and faithful servant."

Introductory Address

ON

THE POPULAR IDEA OF THE DOCTOR TWO HUNDRED YEARS AGO AND NOW.

Delivered at the Yorkshire College, Leeds,

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I WISH to address myself specially to those among you who are my fellow medical students. I call you so purposely, for, however old we may live to be, and however many degrees or diplomas we may succeed in obtaining, we shall still be students of medicine to the end of our days. What am I to say to you? Shall I tell you of the nobility of the profession which you have joined? Shall I speak to you of its astonishing advances—advances so amazing that many like myself, who have seen some of the greatest of them, never cease to marvel at them, albeit a day hardly passes without our making practical use of them? Have I anything new to tell you about the best way in which you may conduct your medical education and fit yourselves for your future life? I was thinking of all these things the other day when I chanced to open an album in which were the portraits of many of my old teachers. I have always been a confirmed hero worshipper. I am sure it does a young man good to have his heroes and adore them and be enthusiastic about them and believe they can do no wrong. One of the faults I have to find with your modern Cambridge and Oxford man is that his motto is *nil admirari*. With him it is the height of good breeding to utter short sentences in a monotone, to preserve a frigid calmness, and to gaze with an equally stolid and bovine eye upon a drunken cabby or a transcendent genius. Only do his pulses quicken when he comes to the consideration of a shirt collar or "the nice conduct of a clouded cane." I confess I cannot bear a fellow who stifles his natural, hearty emotions like a man sitting on the safety-valve of a boiler. To return, however, to the album. As I turned over its leaves I came to the portrait of Syme and looked at the keen, shrewd, somewhat stern face of the Napoleon of surgery, whom in my youth I had constituted my surgical hero, and whose memory I still revere. A few pages further on I came to a beautiful head—a head almost classic in its outlines, and surmounting a tall and stately frame. I recalled the gentle, tender eyes, and the mouth, which, when in repose, gave to the rest of the countenance a tinge of melancholy, but which, in happy moments, could shape itself into a smile of surpassing sweetness. The face was that of Warburton Begbie, physician to the Edinburgh Infirmary. As a student one used to dream day dreams of the future. If ever I pictured myself as a great physician, when I looked closely into that picture it was the portrait of Begbie that I saw. So he became my medical hero. There are some here who will recall him as vividly as I do, and who can tell you for what good he influenced their lives by his own. Of his great eminence as a physician and of the quality of his contributions to scientific medicine I need say nothing. They are still fresh in the memory of those who are best able to estimate their value. As a teacher he had no rival in Edinburgh when I was a student. But while there have been many great physicians and many great clinical teachers, Begbie was not only both, but he was also the gentlest and most kindly of men. When he entered a ward a new light seemed to shine in the faces of the sick. In sooth, something to illuminate their lot was much needed in the dirty, dreary medical wards of the old Edinburgh Infirmary. The very way in which he would put his hand on a patient's shoulder seemed to give the invalid comfort and strength. It was a great lesson to us young lads. We were full of health and life and hope; somewhat too apt to think that these sick people were only pathological curiosities and that we should never have trouble and disease like them. But there stood our master, who had seen much human suffering; who had had not a few trials to bear himself; and every day he taught us not only lessons in medicine, but lessons in courteous and considerate demeanour to the poor. I have always thought of him in my own mind as the gentle doctor, and I have always striven in the hospital ward and in the clinical theatre to imitate his example. People have often said to me that after many years of surgical work a man must become case-hardened. What a mistake! The more blood a surgeon sheds, the more readily do the tears come into his eyes.

As I was musing about my old master it occurred to me that he was essentially a product of the present day and the current of my thoughts took me back a couple of centuries, which is about as far back as we know anything real about the lives and the manners and customs of doctors. Before that time all is imagination and mystery. How could a comparison best be instituted between then and now? Probably by ascertaining what was and what is the popular idea of the medical man of the period. But who is to tell us? The novelist will. The dramatist will. The painter will. At any rate, so it has appeared to me, and I purpose to take one of each from the seventeenth century and one of each from our own day and see what they individually have to tell us about the doctor.

At the end of the seventeenth century lived Alain Réné Lesage. He wrote the history of "Gil Blas." In it he has drawn a caricature of the doctors of the day. Doubtless it is a caricature, but, after all, a caricature is only an exaggeration of the salient points of the individual portrayed. Sangrado is immortal. As long as there are doctors he will never die, and for all time, when anybody wants to poke malicious fun at us, Sangrado's memory will be used to poison the shaft of ridicule. You remember the description of him. "A tall, withered, wan executioner of the Sisters Three, who had done all their justice for at least these forty years. This learned forerunner of the undertaker had an aspect suited to his office:—his words were weighed to a scruple, and his jargon sounded grand in the ears of the uninitiated. His arguments were mathematical demonstrations, and his opinions had the merit of originality." There was no doubt about the last statement, for, after taking six good porringers of blood from the old licentiate Pedrillo, he says to Gil Blas: "It is a mere vulgar error that the blood is of any use in the system—the faster you draw it off the better. A patient has nothing to do but to keep himself quiet; he has no more occasion for blood than a man in a trance. Drink, my children; health consists in the pliability and moisture of the parts. Drink water by pailfuls. It is a universal dissolvent: water liquefies all the salts. Is the course of the blood a little sluggish, this grand principle sets it forward. Too rapid, its career is checked." Let me recall to you the scene where the notary is summoned to make the licentiate's will. "The notary," says Gil Blas, "was a dapper little fellow, who loved his joke, and he inquired who our physician was. At the name of Dr. Sangrado, hurrying on his cloak and hat, 'For mercy's sake,' cried he, 'let us set off with all possible speed, for this doctor despatches business so fast that our fraternity cannot keep pace with him. That fellow spoils half my jobs.'"

We really must not part from Sangrado without one more touch. After Gil Blas has been Sangrado's partner for a while he becomes dismayed at the fearful mortality which their treatment seems to produce and says: "If you will take the hint, Sir, we had better vary our system. Let us give, by way of experiment, chemical preparations to our patients. The worst they can do is to tread in the steps of our pure dilutions and our phlebotomising evacuations."

"I would willingly give it a trial," rejoined the doctor, "if it were a matter of indifference, but I have published on the practice of bleeding and the use of drenches. Would you have me cut the throat of my own fame as an author?"

"Oh, you are in the right," resumed Gil Blas; "our enemies must not gain the triumph over us. They would say that you were out of conceit with your own systems and would ruin your reputation for consistence. Perish the people! Perish even the nobility and clergy, but let us go on in the old path."

This is all exquisitely funny, but in one sense it is very terrible reading, for it is obviously so true to the life. The

English translation was made by Dr. Tobias Smollett. I wonder what he thought of Sangrado. After all, I do not suppose he considered it a very far-fetched description. Look at his own novel, "Roderick Random," written a hundred years later, and containing much of his own early experience as a surgeon's mate in the navy. Could anything be more degraded than the position of a very large section of the medical profession even at so much later a period?

Turning to the drama, it is somewhat curious to note that while Shakespeare, with the exception of the Apothecary in "Romeo and Juliet," hardly makes any allusion to medicine, Molière constantly introduces medical characters into his plays. Sad to say, they were invariably brought in for the purpose of being satirised and held up to scorn. In his celebrated plays, "Le Malade Imaginaire" and "Le Médecin malgré lui," and in the smaller pieces, "Le Médecin Volant" and "L'Amour Médecin," he is so severe upon the doctors that he almost seeks an opportunity for excusing himself. In "Le Malade Imaginaire" he makes Argan, the imaginary invalid, say:

"Your Molière, with his comedies, is a fine, impertinent fellow! I think it is like his impudence to go and bring upon the stage such worthy persons as the physicians." To which his brother Béralde replies, "He does not make fun of physicians, but of the ridiculousness of physic." Béralde is always very severe upon the medicos, and when his invalid brother says to him, "But doctors must believe in the truth of their art inasmuch as they make use of it for themselves," he retorts: "That is because there are some of them who actually share in the popular errors by which they profit, and others who profit by them without sharing in them at all. Your Dr. Purgon, for instance, does not discriminate very clearly. He is a thorough-going physician from head to foot—a man who believes in his rules more than in all the demonstrations of mathematics, and who would think it a crime to wish to examine them. He sees nothing obscure in physic, nothing dubious, nothing difficult. With an impetuosity of prejudice, a stiff-necked assurance, a coarse common sense and reasoning, he flies to bleeding and purging, and stops at nothing. You must not owe him a grudge for anything he might do to you, for he would despatch you with the most implicit faith. In killing you he would only do to you what he has done to his own wife and children, and what, if there were any need, he would do to himself."

There is a most delicious interview between the invalid and a certain Dr. Diafoirus, who is accompanied by his son, young Dr. Thomas Diafoirus.

"*Argand:* Pray, sir, just tell me in what condition I am.

Dr. Diafoirus (feeling the pulse of Argand): Come, Thomas, take hold of the other arm of this gentleman, to see whether you can form a good judgment of his pulse. *Quid dicis.*

Thomas: Dico that this gentleman's pulse is the pulse of a man who is not in good health.

Dr. D.: Good.

Thom.: That it is hardish, not to say hard.

Dr. D.: Very well.

Thom.: That it acts by fits and starts.

Dr. D.: Bene.

Thom.: And even a little irregular.

Dr. D.: Optime.

Thom.: Which is the sign of intemperature in the splenetic parenchyma, which means the milt.

Dr. D.: Very good.

Argand: No; Dr. Purgon says that it is my liver which is not right.

Dr. D.: Well! yes. Whoever says parenchyma says both the one and the other, on account of the close sympathy there is between them through the vas breve and the pylorus, and often through the meatus cholidici. He no doubt orders you to eat much roast meat.

Argand: No! nothing but boiled.

Dr. D.: Well! yes. Roast, boiled—the same thing. He prescribes very carefully for you, and you cannot be in better hands."

"Le Malade Imaginaire" closes with an interlude, a burlesque ceremony of admitting a doctor of medicine into the Faculty. The stage directions, after describing the hall, say: "Then the whole assembly, composed of eight syringe bearers, six apothecaries, twenty-two doctors, and the person that is to be admitted physician, eight surgeons dancing and two singing, enter and take their places, each according to his rank." There is a president, who invites members of the assembly to "heckle" the candidate. The whole is spoken in dog Latin, with an admixture of French, Italian and Spanish that is extremely diverting, but quite untranslatable. Whatever be the question, the candidate has only one answer, "Clysterium donare, Postea seignare, Ensuita purgare," and at once the chorus bursts out into "Bene, bene, bene respondere: Dignus, dignus est intrare In nostro docto corpore." One doctor propounds a case to him with the usual answer. "But what is to be done if the case won't get well?" says the examiner. "Reseignare, repurgare et reclysterisare," cries the candidate, while the chorus roar out, "Bene, bene, bene, bene respondere." Finally, clapping the doctor's bonnet on the bachelor's head, the president gives him his licence to practise, with the right of physicking, purging, bleeding, piercing, slashing, cutting and killing throughout the whole land. "Ego, cum isto boneto Venerabili et docto, Dono tibi et concedo Virtutem et puissanciam Medicandi, Purgandi, Seignandi, Perçandi, Taillandi, Coupandi Et occidendi Impune per totam terram." The whole interlude constitutes perhaps the funniest satire on medicine that ever was written.

Now for the painters. In the house of a friend of mine hangs an old engraving by Nanteuil called "Le Bassin." It is a representation of a doctor holding in one hand an earthenware vessel containing excreta of some sort, to which he is solemnly pointing with the forefinger of the other. He wears a gown. His head is adorned with a kind of big flat cap, from beneath which flows his long hair. Round his neck is a fur collar, and large white bands hang from below his chin. His eyeglasses are somewhat awry on his nose, and he is evidently giving forth some portentous prognostication as the result of his examination. A glance shows him the incarnation of quackery. Beneath the picture are some verses in old French, the sense of which may be expressed thus:—

Doctor! this precious mess test well,
And from its savour, from its smell
Your prophecies declare
Your skill should soon procure at least
A burial service for the priest,
Whose fees you'll gaily share.[1]

The same form of sarcasm is seen in the famous picture, "La Femme Hydropique," and in many other productions of the Dutch and Flemish artists. It comes out at a much more recent date in the savage caricatures of Gillray. I saw one the other day in which the peasants of a village are represented shooting their rubbish. A great crowd follows three wheelbarrows in which three individuals are being wheeled away. In the first is an attenuated wretch with bag and papers—the lawyer. In the last is a great fat figure with full-bottomed wig and gouty leg done up in flannel—the parson. In the middle barrow, with three-cornered hat on head and still grasping his squirts and bottles, sits the doctor.

Now, while we have the idea of the seventeenth-century doctor fresh in our heads, let us leave two centuries behind and come to our own day. What says the modern novelist? If you want to read a charming book, go and buy Le Docteur Rameau by George Ohnet, one of the few French authors who do not consider it essential that the chief constituent in a novel should be literary ordure—which is considered a great crime in him by those mandarins the Parisian critics. The doctor is of the humblest origin, the son of a railway *employé* in the country. One day a terrible collision occurs near his father's hut. Although only fourteen, he displays such energy in helping the village surgeon, Dr. Servant, to succour the wounded that the latter sees his genius. He gets him put to school, and, in due time, with the aid of scholarships, gained by his indomitable hard work, Rameau has his choice of going to the École Polytechnique or to the École Normale. Here his benefactor, Servant, steps in and says to him, "Do thou be a doctor. What I have given to thee give back to thy fellow beings. That genius, which is undeniable in thee, place it at the service of humanity." When he comes on the scene Rameau has reached the highest grade in his profession. He is a professor and operator of renown, in great request as a consultant and a famous clinical teacher. Here is the description of him: "Fifty years of age, with a vigorous constitution never weakened by any excesses, Rameau is a man of great stature, with a visage rugged as a volcanic soil. His big forehead

[1] **De ce mets précieux goûte, frland Docteur,**
De son odeur, de sa saveur
Tire d'infaillibles presages.
Voi si ton Art aura promptement procuré
Des *De Profundis* de curé
Avec qui gaiment tu partages.

is crowned with grey hair, wavy and coarse, like the mane of an old lion. His grey eyes, clear and piercing as his own steel instruments, are surmounted by eyebrows, black and shaggy. A ruddy complexion tells of blood boiling with the activity of a life absolutely devoted to toil, and his thick-lipped mouth breathes of kindness. But there is a deep wrinkle at the root of the nose, furrowed between the eyebrows, and when he is profoundly occupied or when he is annoyed this wrinkle gives him a fearsome look. At the hospital or in the amphitheatre, when the word is passed that 'Rameau has got his wrinkle,' it is a storm signal for the house surgeons and pupils. Not a man but trembles and holds his peace when that fearful furrow comes over the usually genial brow of the *savant*, for his bursts of passion are formidable and nothing can stop them. His roughness is as well known as his skill. No woman ever put on a dressing or adjusted a bandage with a lighter hand or more dexterous fingers; no carter ever swore at his horses more furiously than the doctor at his assistants. The frightened patients get under the bedclothes or bury their heads in the pillows when they hear the thundering voice of the surgeon as he flourishes with a menacing air some sharp-bladed instrument. He does what has to be done for them; and then, transported with joy, the poor things, more dead than alive, learn that the operation, which they fear has hardly begun, is already over and finished. Then it is that they bless the skill of that kindly carver and come to know why it is that the house surgeons and pupils laughingly say behind his back, 'It's only Rameau's tongue that ever hurts his patients.' Without doubt, the confidence which he inspires accounts for half the success of his treatment. It is so well established that the presence of Rameau by the bedside of a sick man puts death to rout that at the first glimpse of the doctor as he comes in the patient feels himself saved. No great person in the land ever has a serious illness without Rameau being summoned at whatever cost. When the Innspruck surgeons wanted to cut off the Archduke Charles's leg, after he had fallen into a ravine chasing the blackcock, it was owing to his skill and ingenuity that the prince was saved from being a lifelong invalid. For his trouble he demanded a hundred thousand thalers. He once went to operate on Garibaldi for a phlegmon, which was seriously endangering his life. He asked from the grand old adventurer, as a fee, a flower from his garden. Rameau is a democrat and a freethinker—a democrat because, sprung from the people, he has inherited their bitter notions about equality; a freethinker because in his profound scientific researches he has only encountered at the end of his scalpel mere matter, and because his powerful mind refuses to admit what it cannot explain."

Is not this a delightful description of a modern French doctor by a modern French novelist? I think you will forgive me quoting for you a charming incident. There are two ladies, widowed mother and daughter, who have been reduced from affluence to poverty and barely eke out an existence by dressmaking. Their old servant Rosalie still clings to them. The mother takes ill and is at the point of death, and the daughter's anguish is terrible. Then the servant Rosalie invades the crowded consulting-room of Rameau. She is arguing with the manservant, who is telling her that the doctor cannot possibly see her till the following day. Then comes this scene—

"The sound of a bell interrupted the talk and, without giving a thought to the distressed woman, the manservant opened a door and proceeded to let out the person who was leaving the consulting-room. In the half light of the waning day the tall figure of Rameau appeared. Some brief parting words were exchanged between the doctor and his patient. The woman, who was weeping, had raised her head. With the intuition of grief she divined in that unknown, barely visible person the saviour she had come to implore, and, rising sharply, she precipitated herself after him into the room. Rameau did not hinder her, but looked her all over with a smile.

"'What is it, my good woman?' he said, in his deep, grave tones.

"'Oh! my dear sir! Surely you are Dr. Rameau; are you not?'

"'Yes, I am.'

"'Then it must be Providence that has permitted me to reach you. Ah! Great Heaven! your servant was just telling me that I must either wait or come back to-morrow. As if death would wait!'

"'Death?'

"'Yes, my dear, good sir, our doctor has said so. It is a question of hours. If the operation is not done this very evening my mistress will never get over the night. And we heard that it was only you that could save her. Then mademoiselle said to me: "Run for Dr. Rameau and bring him. Ah! Dieu! promise him what you like; we shall sell the furniture, if necessary, to pay. Only let him save mother!"'

"Rameau knit his brows. The woman saw a cloud pass over the face of the *savant*. She reddened and stopped, quite confused.

"'Forgive me,' she cried, 'I am so troubled that I say anything that comes first; but I am indeed sorry to have offended you.'

"Rameau made a careless gesture.

"'Are your mistresses, then, poor?' he asked.

"'Alas! Yes! The dear ladies! After having been in such an excellent position too, distress is all the more painful for them. But so good, one would be cut in pieces for them. And mademoiselle, so sweet and so beautiful. Ah! doctor! if you only knew her!'

"'Well, now, what's the matter with your invalid?'

"'Oh! some sort of gangrene. At first they treated her for rheumatism in the shoulder, and then, day after day, they have seen her steadily going from bad to worse. Ah! Sir! if she had been rich, as she once was, they wouldn't have let her go to the last gasp. But the poor! They can die. Isn't that so?'

"Rameau threw back his head and very gently replied, 'No, my good woman.'

"Then he calls his carriage and goes out with her, leaving the rich occupants of the crowded ante-chamber to come next day. He cures the mother and marries the beautiful m'amselle. After some years his wife dies, leaving him a daughter, and terrible griefs and calamities accumulate around him. Still he obstinately remains a disbeliever and an atheist, and under the burden of his sore troubles he only becomes more and more defiant and obdurate. His miseries culminate in what threatens to be the fatal illness of the beloved child. But she recovers and marries her father's assistant, and the story closes with a beautiful scene in the church at the marriage. Beside Rameau sits his old and faithful friend Talvanne, who has stood by him through all his troubles.

"At that moment, with measured steps, the priest descended from the altar to unite the young couple. Adrienne's uplifted veil allowed her countenance to be seen bent down in fervent prayer. At the question, 'Do you take for your husband so and so?' she answered with a clear tone, 'Yes;' and her gaze, turned a little sideways, riveted itself on her father as if to offer to him all that happiness which filled her. That look expressed a tenderness so profound that it penetrated Rameau to the heart. At the same instant the sun streaming through the windows of the choir kissed with its rays Adrienne's yellow hair and lit it up as with a golden glory. So she appeared as if transfigured, almost isolated in a divine luminosity, like some young saint come down among men. In her Rameau beheld an angel sent to him to console him for all his miseries. All that remained in him of bitterness or pain melted away in a delicious ecstasy and, full of humble gratitude, he knelt down. Talvanne, hearing him speak in a low tone, leaned over to listen and heard these words murmured with fervour, 'My God! My God!' It was the atheist who was praying."

And now, how do they put the doctor on the stage nowadays? The other night I went to the theatre to find out. I went to see Sydney Grundy's play, the "Fool's Paradise," in which the chief part, that of Sir Peter Lund, the physician, is played by my old friend, Mr. John Hare. In a character of this sort Mr. Hare has admittedly no rival in this country, and therefore it need hardly be said that the part was played to perfection. Doubtless many of you have seen the play, and will remember the admirable make-up of the old doctor, who obstinately keeps up, even in his dress, the traditions of his youth. He is brusque and dictatorial, but there is a total absence of solemn pretentiousness about him. He affects not to know anything, and would have you believe him to be a sort of medical agnostic. He actually delights in making fun of his own profession. But he has not uttered half a dozen sentences before you see that he is a shrewd man of the world, who has mixed with every class of society, from the peer to the pauper. He knows that drugging is for the most part useless, and says so; only the public will have drugs and do not believe in a doctor who talks common

sense to them. There are some capital bits of humour in the conversations between Sir Peter and his patient Philip, whose mysterious case he is quietly and accurately fathoming, while affecting all the while to talk nonsense to him. Sir Peter says to him—

"Well! what's the matter with you?

Phil.: Really, Sir Peter, that's what I want you to tell me.

Sir P.: You have a high opinion of the medical profession. Do you suppose we can tell you anything if you don't tell it us first?

Phil.: I have always supposed so.

Sir P.: Error, sir. You tell us everything we tell you. The only difference is you tell us in English and we tell you in Latin. You take a fee out of your pocket; we put it in ours.

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Phil.: You are plain-spoken, Sir Peter. Now, tell me with equal candour what is the matter with me.

Sir P.: Shall I tell you the truth?

Phil.: Of course.

Sir P.: I don't know.

Phil.: Surely with your experience——

Sir P.: Sir, I have no experience.

Phil.: Well, with your knowledge——

Sir P.: Sir, I have no knowledge. Knowledge is the monopoly of extremely young practitioners. I have been doctoring for forty years, and now I stand here on your hearthrug, sir, a monument of triumphant ignorance.

Phil.: Nonsense, Sir Peter.

Sir P.: Sense, sir, sense.

Phil.: Be candid and tell me frankly what is wrong with me.

Sir P.: Your liver, probably.

Phil.: Only my liver!

Sir P.: Don't speak disparagingly of your liver, sir. That eminently respectable organ has been much misunderstood. It is commonly supposed to serve certain functional purposes in the physical economy. Another fallacy! The liver was made by a beautiful provision of nature for the benefit of the medical profession."

During the play I watched the audience to see what they thought of Sir Peter. They evidently liked him very much. They enjoyed him. In one scene the wicked wife, who does not wish him to prolong his stay in the house, says to him: "But what will your patients do without you, Sir Peter?" "Recover," he answers, and bolts out of the room. This amused them amazingly. But why did they like him? I am certain they liked him for his honesty and his kind-heartedness. In spite of his odd ways and affected cynicism one could see that he was a genuine, true friend, and, in his own heart, was oppressed with anxiety for the safety of his friend and patient. And when the time came for a terrible disclosure and he had to denounce the miserable wife as the poisoner of her husband he rose to the occasion. There was no affected cynicism in the sharp clear voice with which he said, "I suspected you from the beginning." He stood out a courageous old man, prepared to do and say anything for the right.

Finally, we come to the painter of to-day. It will not be denied that the picture of 1891, the one which stood out clearly and prominently above all the other pictures of the year, was Mr. Luke Fildes' "Doctor." Of the hundreds of medical men who must have stood before that picture I am sure there was not one whose pulses it did not quicken with pleasurable pride, or who left it without thinking that it already had been, and again would be, his privilege to fight against pain and suffering and death like his colleague on the canvas. For to us he is a real living man like ourselves. We have acted like him and felt like him.

Note where the scene of the picture is laid—not in some rich man's mansion, where the doctor might reasonably expect a handsome fee for his trouble, but in a working man's cottage, where most likely the gratitude of the people and a consciousness of having done his duty by the poor would be his sole honorarium. With admirable skill the painter has pitched on the early hour of morning for the time. The light of the lamp in the room and the light of the dawn coming through the casement are struggling with each other. It is the cold sad hour when human vitality is the lowest and when statistics tell us most men die. The sick child, worn with the raging fever that commonly burns from eight in the evening till one or two in the morning, lies spent and exhausted. Till then the parents have been fighting on with their nursing; soothing, caressing, encouraging their little one. But now they too are exhausted and depressed, and hoping against hope seems all that is left to them. And there sits their friend—the gentle doctor—watching with them, and still puzzling his brains to think what more he can devise to stay the lamp of life from flickering out. He is no courtly physician. He is only a country doctor, but his somewhat rugged face tells of honesty and common sense and self-reliance and gentleness. What more do you want? The men that look like that man, whatever be their business or trade or profession, whatever be their wealth or their social position, I say, of such men is the kingdom of heaven.

Let us, then, take a review of the whole matter. This much is clear, that when a personification of the doctor was presented to the public two hundred years ago, he was invariably held up to ridicule as a quack. He was a man who pretended to a knowledge that he did not possess—by consequence a man whose life was one continual fraud. His language was inflated and bombastical, and his sesquipedalian words were employed to distract attention from the unintelligible and idiotic ideas which they concealed. Having a love for collecting old medical books I have dipped a good deal into them. Often, after coming to the bottom of a page, I have read it again, and if it had been written by any lunatic in Bedlam it could not have been more absurd or vacuous. The word "experiment" was almost unknown. If there arose a question as to whether some particular thing was blue or red, men did not go to find it, and see with their own eyes whether it was blue or red, but they sat in their closets and argued about it. I must admit that if the doctors of that day were always presented to the public as quacks they did their best to deserve it. The next thing that is clear is that they were overbearing, greedy, hard-hearted quacks. Never once are we shown one of them doing a good or kind action. The doctor is an impostor whose sole object is to get his fee. That fee he must have if the wretched patient has to sell the shirt off his back for it. Such, I assert, is the impression which must be conveyed to the mind of anybody who reads the novels or dramas or looks at the pictures or caricatures of the seventeenth century. But were all those old doctors like this? No, most certainly not. There were splendid men among them. Look at the names of Morgagni and Bartholin and Willis and Sydenham and Malpighi, among many others. These men had as great patience, as keen wits, as unselfish motives and probably more courageous hearts than any of our scientific men of to-day. Their labours and discoveries were as great and as important as our own. We are every day making use of their work, just as the twentieth-century doctors will make use of ours. But they were in a small minority. Their bright and glorious example had not descended. The rank and file of the profession were still the greedy quacks that Le Sage and Molière and the Dutch artists painted. Molière has been accused of having been too severe upon the doctors of his day, but no ridicule can be too severe when it is employed to expose the humbug and the charlatan. To him, as a profession, we are under an eternal debt of gratitude. As a body we were sick men. His physic was bitter enough in all conscience, but it took hold of the disease and cleansed away many of our impurities.

Turn we now to the picture of to-day. Whatever be the shortcomings and weaknesses which the doctor has, in common with all his fellow men, they are not now seized upon and savagely caricatured and grotesqued to amuse a jaded public. Nobody makes more fun of us than *Punch*. But his fun is always so genial and good humoured that, when a medico forms the principal figure in one of his pictures, the medicos eagerly buy the paper to enjoy the joke. And when a doctor has done some self-sacrificing bit of heroism, who so ready to sing his praises as our dear old friend *Punch?* If you go to the theatre you will see that the people like Sir Peter Lund. His *brusquerie*, his pretended cynicism, and his real tender-heartedness please them. They admire his honesty and his fearlessness when the moment for decisive action arrives, and they are amused with the keenness and shrewdness which a long acquaintance with men and things has given him.

And, finally, tell me a picture that has ever appealed more powerfully to the public than Mr. Fildes' great work? Naturally it has had to run the gauntlet of severe criticism; but to attract criticism is in itself a sign of the inherent value of a thing. As to the technical merits of the picture I say nothing. Artists are the proper judges of that. But when they accuse the painter of false sentiment I join issue with them at once. To my mind a picture is falsely sentimental

when the artist represents in it a scene or situation which does not occur and is consequently unreal, with the object of eliciting our sympathy and our more tender emotions. But the situation represented in "The Doctor" is not an unreal one. It is a painfully common and real one. It is one which occurs continually in our lives. Would that I had some Asmodeus to lift off the roofs of the houses of Great Britain to-night and to take these critics to where life and death are engaged in the final contest for the mastery. They would see to-night—this very night—Luke Fildes' doctor sitting by the bedside watching for every deeper breath, every stronger pulse that might give him hope to go on with the fight. They would see the country doctor in the Highland cottage or the Yorkshire farmhouse. They would see the physician of renown in some great nobleman's palace. They would see the house surgeon in the hospital ward. But, in whatever capacity he might be revealed, of this I am sure, that he would be seen overmastered by the one idea of how to save his patient and how to show himself the gentle comforter of the afflicted friends. I have just said that we owe much to Molière for lashing out of us the quackery and ignorance that prevailed in his day. But what do we not owe to Mr. Fildes for showing to the world the typical doctor, as we would all like him to be shown—an honest man and a gentle man, doing his best to relieve suffering? A library of books written in our honour would not do what this picture has done and will do for the medical profession in making the hearts of our fellow men warm to us with confidence and affection.

And now, my dear young friends, we are nearing the end of the nineteenth and you will be the doctors of the twentieth century. Upon you will devolve the responsibility of maintaining that honourable position in the sight of all men which your forefathers have struggled to win for the profession of their choice. You are no longer students of a mere provincial school of medicine. You are members of a college of a university, which, before your days are ended, will have revolutionised education in the north of England. The ground has been prepared and planted and watered, and you are the first fruits. Yours it is to bring forth an abundant harvest of good works, not merely for the credit of your profession, but for the glory of your *alma mater*. You must copy the intense industry, the resolute will, the single-eyed devotion to science of Docteur Rameau. You must, like Sir Peter Lund, learn to be wise as serpents as well as gentle as doves, so that you may bring to bear upon your patients' cases not merely a knowledge of morbid anatomy and drugs, but also a knowledge of the ways of the world and of the inner workings of men's lives. But, above everything, whatever may be the rank in your profession to which you may attain, remember always to hold before you the ideal figure of Luke Fildes' picture, and be at once gentle men and gentle doctors.

I take my farewell of you in the words with which Molière's president opens the examination function for the Bachelor of Medicine—

> Savantissimi Doctores,
> Medicinæ Professores,
> Qui hic assemblati estis;
> Et vos, altri messiores,
> Sententiarum Facultatis
> Fideles executores.
> Chirurgiani et apothecari,
> Atque tota compania aussi,
> Salus, honor et argentum
> Atque bonum appetitum.

LOWESTOFT HOSPITAL.—The committee of this hospital, in their report, state that there has been an increase of expenditure during the past year, due to the increased stress put upon the hospital by the terrible accident at Barnby in December last. Increased accommodation is required, and accordingly plans have been prepared for new buildings, the cost of which is estimated at £900. Sir Savile B. Crossley, Bart., has been elected president of this hospital in place of Mr. W. F. Larkins.

A DILEMMA AT POPLAR.—The district of Bow, Bromley and Poplar has two medical officers of health for the three parishes, Mr. Corner and Mr. Talbot. The former has resigned with a gratuity of £390, and the Board wish to place the whole of the district under one medical officer; but Mr. Talbot is not, of course, compelled to resign or take sole charge and thus the Board is in a difficulty. The sanitary committee, as a compromise, recommend the appointment of a new medical officer for Bromley and Poplar.

Abstracts
OF
INTRODUCTORY LECTURES ETC.
DELIVERED AT THE
LONDON AND PROVINCIAL MEDICAL SCHOOLS
AT THE
Opening of the Session 1892-93.

ST. GEORGE'S HOSPITAL.
INTRODUCTORY ADDRESS BY DR. R. L. BOWLES.

THE address opened with a welcome to the new students, and with some references to the great services rendered by St. George's Hospital and its medical school in the past, and to the great and peculiar advantages enjoyed by the present generation of students. They were asked to have confidence in and to cultivate the friendship of their teachers, and to preserve the tradition that "a St. George's man is expected at all times and under all circumstances to be a gentleman." The apprenticeship system was announced to be dead, defeated by the rapid march of science. This led to the main subject of the address, "the application of physics to physic." The lecturer then pointed out that all changes occurring in physiological and pathological processes, formerly supposed to depend on that unknown quantity "vital force," were really nothing more than the action of the recognised forces of nature on the organs and structures of the body. Reference was then made to his own researches on the influence of physics in the treatment of the apparently drowned, and to their influence on patients suffering from apoplexy, chloroform poisoning, and all states of unconsciousness. Coughing, sneezing, snoring &c. were all shown to have immediate origin in physical conditions. The lecturer went on to say that almost all the work of surgery is done by the proper application of the laws of physics; injured parts and broken limbs are kept at rest, dislocated parts are placed in their natural positions, redundancies are removed, and natural deficiencies often well supplied; crooked paths are made straight, and blocked and narrowed ones made patent; stiffened joints are made to move, crooked limbs put into shape; eyes are made to see that would not, and ears to hear that could not. Surgery is a department of physics; a physical art. Medicine, formerly the region of the unknown and the happy hunting ground of quacks, is rapidly following in the same lines. The so-called practical man and the believer in dogmas and nostrums are rapidly giving way to minds trained in the laws of physics. Physiology, medicine's forerunner and its handmaid, is steadily step by step, and without prejudice, elucidating the ways and doings of animal life. By instruments of the most elaborate and delicate nature, by patient and continuous observation, by anatomical and histological searchings, and by the application of the laws of gravitation, chemistry, heat, light and electricity, always by ways and means connected with physics, we are getting to understand better and more surely the movements and functions of respiration, of circulation and digestion, of secretion and excretion, and finally we hope to understand the most subtle and mysterious of all functions, the operation of the nervous system. Physic, or the sphere of the physician, is the application to diseased or disordered conditions of the ways and means of physiology. We reduce to experiment the disordered state that we may learn its real nature and be enabled to bring it back to order by the use of natural and appropriate means. Students were advised of the necessity of acquiring sound principles and exactness in the sciences; the lecturer mentioning the difficulties which beset him in his earlier years from not starting well equipped in this respect. The value of experiment was next commented on. Sir John Simon had said: "The experiments which give us our teaching with regard to the causes of disease are of two sorts: on the one hand we have the carefully pre-arranged and comparatively few experiments which are done by us in our pathological laboratories, and for the most part on other animals than man; on

the other hand, we have the experiments which accident does for us, and above all the incalculably large amount of crude experiment which is popularly done by man on man under our present ordinary conditions of social life, and which gives us its results for our interpretation." This was illustrated in the case of cholera: on the one hand were Professor Thiersch's scientific infection experiments performed on mice; on the other the experiments in connexion with water-supply, in the 1848 and 1853 epidemics, performed on half a million of people in South London. Both gave the same result. "The experiments which illustrated the dangerousness of sewage-polluted water-supplies cost many thousands of human lives; the scientific experiments which, with infinitely more exactitude justified a presumption of dangerousness, cost the lives of fourteen mice." Passing on to the bases of all true medical work, anatomy, physiology and pathology, he said that anatomy contemplates the parts of the body in a state of rest, the structures on which functions play. Physiology contemplates the parts of the body as living and in process of change, change not only of a mechanical kind, but change of energy and of form, which are the necessary results of function. Pathology is but a part of physiology, the one declaring what is normal in function, the other what is more or less a departure from the normal. Hippocrates more than 2000 years ago proclaimed pathology to be a branch of the science of nature; the slowness of its development can only be explained by the equal slowness of the progress of the natural sciences themselves. Of late years, however, advances have been truly made by leaps and bounds. Professor Schroeder in Germany and M. Pasteur in France, by their investigations on fermentation and putrefaction, and M. Chauveau on the particulate nature of contagia, opened up an entirely new world to us all. We have now not only to study the causes as well as the changes of the disease in the body, but also the doings of the bacteria outside the body and within it. These facts applied to the State at large, forming what is called State medicine, have increased the average duration of life and diminished the suffering consequent on bad health and disease. Each succeeding year shows more and more clearly the great value of physics in the department of preventive medicine. Sir John Simon years ago showed the important part which medicine played in the political economy of the country, and he succeeded in due time in bringing the State and the medical profession into organised relation with one another. Next was pointed out the manner in which physics may be applied for remedial purposes. Change, muscular and nervous, lies at the root of all recreation. The students were reminded that "all work and no play makes Jack a dull boy," and that games and the pleasures of exercise may well be enjoyed during their pursuit after knowledge. Extremes should be avoided, and when really tired rest was a necessity, for fatigue implies diminution of the physico-chemical changes connected with the evolution of force. In some states, movement, exercise and massage may be useful; in others, air, fresh air, or change of air, more of nature's medicines, as are also heat, electricity and light; the last of these having been experimentally shown by the lecturer to produce some very singular effects in connexion with sunburn. Lastly, the lecturer said that we come to the consideration of the administration of medicines. Here empiricism has hitherto been almost supreme, but, thanks to the sciences, clearer and more certain views are taking its place. Materia medica or the knowledge of the remedies employed in medicine has its divisions, its departments, each and all being worked on scientific principles. Pharmacology is the knowledge of the mode of the action of drugs upon the body generally and upon its various parts. Therapeutics imply the administration of remedies suitable for the relief of particular symptoms in proper doses and proportions. Long and complicated prescriptions are to be avoided. Not a single drug ought to enter the body except under clear intention of what object it is to fulfil there. Compounds may be good cookery, but do not form scientific medicine. We cannot by any amount of training make a man distinguish himself in a subject to which he is by nature unfitted. Like a real artist the man must have "the touch of the finger of God, of the all-informing, all-creating imagination."

> "There's a divinity that shapes our ends,
> Rough-hew them how we will."

In conclusion, Dr. Bowles warned the students against mistaken views of materialism. The "ars medendi" is practically illimitable. In Bacon's use of the term, it is coextensive with the whole field of terrestrial nature and the students of the physical and biological sciences are emphatically the servants of nature. Sir Thomas Browne, in his "Religio Medici," tells us that "nature is the art of God." Do not ever be bewildered into supposing that there is any antagonism between religion and science; there is no such antagonism. The man of science interprets the physical laws, and equally with the teacher of religion tells us of the greatness and grandeur of the Creator. Every discovery of the scientist can only tend to increase our wonder at the omniscience and perfection of the ways of God.

GUY'S HOSPITAL.

INTRODUCTORY ADDRESS BY MR. A. ERNEST MAYLARD.

MR. MAYLARD, after expressing his appreciation of the honour which he felt had been conferred upon him in asking him to come from Glasgow to deliver the opening address, proceeded in the course of his remarks to speak of the value of cultivating a spirit of inquiry. He said he considered it one of the best attributes possessed by a student and one of the best faculties to maintain throughout life. "We needed nowadays, more perhaps than at any previous period, to cultivate an attitude of mind which was ever seeking to know the truth. Our profession was one which was peculiarly handicapped in the matter of advance. It was so easy to promulgate a principle or theory, but so difficult to be certain that its basis was sound. It was true enough that we spoke of the science of medicine and surgery, and yet we could not speak of the science of human nature. It was too variable in its formation and function to admit of the framing of general laws. Hence true advance was often hindered by the innumerable practices founded on some false theory or inculcated on insufficient grounds. One, perhaps, of the commonest errors to which we were addicted was that of generalising from a too limited field of experience, assuming, for instance, that what proved suitable or successful in one or two individual cases would effect a like result in all others. Again, we were often apt to forget that within the greater part, if not within the whole period of its existence, the human body had a constant inherent tendency to return to a certain normal standard, and we were apt to assume that measures adopted by us effected results which in reality were due to nature's own work. How should we then as inquiring students contend with these difficulties; or what should be our attitude in respect to them? If we constantly cultivated and exercised a spirit of searching inquiry we should, in the first place, ourselves not be ready to make assertions which we honestly felt had not yet stood the test of a sufficiently extended experience; and in the second we should not be over hasty in adopting every nostrum that is put under our nose, every treatment we read about, without being first fully satisfied as to the veracity of the statements made or the merits of the claims advanced." To illustrate more fully and graphically how a student should exercise and cultivate his faculty of inquiry, Mr. Maylard proceeded to picture in imagination a case of a wound dressed antiseptically. The practical treatment of such a case was carried out with the most elaborate details, formed on a very simple principle. The questions which the inquiring student would ask were whether every detail of the procedure was an accurate fulfilment of the conditions required by the principle, did every agent employed effect the result desired? It was pointed out that in view of the rapid development of the science of bacteriology many new theories and practices based upon them were and would be sent forth into the medical world. But every inquiring student should be cautious in not accepting too hastily conclusions which a more careful and prolonged consideration may prove after all to be based on some false or mistaken theory. In conclusion, Mr. Maylard said: "If the faculty of inquiry was to be exercised to its fullest advantage in our professional life, it must be cultivated to an equal extent in all our relations to the world around us. It should form as much a part of our religion and our politics as our profession. It was hardly possible to think of a man as a bigoted sectarian, a purely party politician or a rampant advocate of any sect or subject, whose mind had been broadened and his views extended, by a searching inquiry into the subject at issue. Dogmatism in any shape or form was not an attribute that belonged to the followers of our profession. It indicated a limited, not an extensive, knowledge. It is for us ever to be seeking and making each truth as it is found, not the limit of our inquiry but the basis for the discovery of another."

THE MIDDLESEX HOSPITAL.

INTRODUCTORY ADDRESS BY DR. SIDNEY COUPLAND.

"MY first words must be ones of regret and apology—regret which we all feel that Dr. Pringle, to whose address we had been looking forward, should have been ultimately compelled by indisposition, arising, I fear, from too unremitting devotion to duty, to abandon the task we had imposed on him. He has been reluctantly compelled to deprive us of an anticipated pleasure, and that has necessitated my appearance before you in an unexpected character. I am very grateful to my worthy colleague, Dr. Pasteur, for relieving me of my official duties on this occasion, but I owe my hearers an apology for having rashly undertaken to play the part of understudy to the chief actor of the day. We felt, however, that to have omitted this portion of the programme altogether would have been hardly courteous or right. I trust, then, that I may have your indulgence while I endeavour to maintain this time-honoured institution. The main object, I opine, for these introductory addresses at the opening of our winter session is to welcome those who sit on these benches for the first time, to hold out to them the hand of fellowship and to bid them Godspeed in their new career. To such, then, on behalf of my colleagues and all members of this school, I offer this cordial greeting, promising that although you may find the pursuit of medical studies somewhat arduous and exacting, yet that it is full of those pleasures which are well known to accompany the exploration of new regions, and that day by day, as Nature yields up her secrets, you will find them more and more fascinating. If it were not for those examinations which loom so fearfully in the distance your career here might be almost romantic as you explore the unknown; but we are forced to realise the stern utility of our labour and think to what purpose we shall be required to put the knowledge we are gaining. I have only this to say, that he who does pursue his work in the spirit of the scientific investigator will be sure to have made his knowledge so accurate that he will have no fear of any board of examiners. Therefore, the chief advice I would give you is so to work practically and personally at all your subjects as to fully master them and never stop to inquire whether it might be better to omit some matters and to dwell long on others because they may or may not be likely topics to find favour in the examiner's eyes. You are fortunate in the time of your entrance upon this calling. For in no period of the world's history has there been such a keen desire to find out the truth of things. The sciences which at the opening of this century were emerging from obscurity are now daily enriching the world with their benefits. Never indeed were the advances of knowledge so rapid and so fruitful. We see this not merely in the multiplicity of inventions, all tending to conduce to the material comfort and happiness of mankind, but notably also in medical science, where the labours of numberless investigators in tracking diseases to their sources are leading us to more rational measures for their prevention and treatment. If the golden age ever does arrive when preventive measures will have made scarlet fever, typhoid fever, diphtheria and tuberculosis as rare in this country as typhus fever, relapsing fever, the plague and leprosy, and to a certain extent all manner of surgical septic diseases, there will still remain much for medicine to do in its task of rendering the earth fit to live in. Only quite recently we have been forcibly reminded of our ignorance and impotence. For, as if to mock our science and our skill, the world has witnessed during the past three years the recurrence of a pandemic disorder which has periodically traversed the globe in historical times—a malady which, though often apparently trivial in its immediate symptoms, has indirectly been responsible for an untold amount of sickness and mortality." Turning to the older branch of the medical art—that of healing—the lecturer asked: "Is the advance also great upon that line, and how is it being pursued? It seems a truism to say that the more we know about diseases the better we shall be able to treat them. Still, although we have learned much respecting the art of healing, we have infinitely more to learn and much, I think, to unlearn. The sarcasm which Molière levelled at the physicians of his day is not without meaning now. We too may often err in assigning too great importance to remedial measures and too little to the beneficent working of the organism itself. No one has more emphatically urged this than the late Dr. H. G. Sutton of the London Hospital, who combined in one the gifts of the practical physician, the philosopher and the poet. His lectures should be read by every member of our profession as an antidote against the common error of mistaking recovery for cure. It has been sometimes urged as a reproach to physic that in respect to the treatment of disease her advance has been far behind that of surgery. I am not about to make invidious comparisons or to meet this criticism with the rejoinder that the opportunities for the performance of the new surgery have been largely owing to a sounder knowledge of the facts of pathology and a greater perfection in diagnosis." After alluding to the benefits conferred by this increased surgical boldness, the lecturer continued: "That there is also progress in the domain of medical therapeutics it would be idle to deny, but unfortunately in this department we are still largely under the influence of teachings framed in times when the structure and functions of the body were imperfectly known, and the operations of disease hardly understood at all. And, moreover, it is because of the darkness which still prevails concerning the intimate processes of disease that we still have to grope our way and trust to the haphazard inferences of experience in many of our prescriptions. I am far from wishing to minimise the importance of those studies in materia medica to which you will have to devote many hours; they have their place, not only as a mental exercise, but as a source of information upon what was once the chief armamentarium of the doctor which it would be a pity to lose. Nevertheless at the risk of being pronounced a heretic by the College to which I have the honour to belong I make bold to say that the place taken by drugs in the treatment of diseases is very often a purely subsidiary one. In saying this I must guard myself from misconception. There are many occasions where the prescription of appropriate remedies is of inestimable service, but very often this part of treatment is necessarily unscientific—that is, empirical or irrational. The difficulty lies in affirming in many cases what is the precise nature of the change introduced into the economy by the administration of physic. And this difficulty is enhanced by the fact that we deal with patients, living individual organisms, and not with abstract morbid states. That much-abused genius Paracelsus was far in advance of his contemporaries of the dark age of medicine when he declared that drugs acted on the body by virtue of chemical changes; and the lacuna that has still to be filled is to determine what is the precise change that is necessary to be effected in any given case. Of one thing at least we may be thankful, and that is that the days of polypharmacy are numbered; but, as a set-off to this, we seem to be living in times when a new remedy is vaunted every week, and after a brief but glorious existence sinks into oblivion. I tremble to think of the labours you would have to undergo were it not for the limitations imposed by the British Pharmacopœia and the Schedule of Drugs which the Examining Board has considerately drawn up as being all that is really necessary for you to know. I suppose that the old conception of the apothecary as one whose skill was bound up with the multiplicity of the remedies he might have for every ill is still prevalent, for we have ample testimony of the popular belief in the virtues of physic daily before our eyes. Few things are more surprising, and indeed more saddening, than to find in these enlightened days when the schoolmaster is abroad in all parts of the land that one of the most certain ways to a great fortune is to be the inventor of a pill or a mixture, or even of an ointment. Nay, you have only to shut yourself up in a remote castle and turn out bottles of electrified distilled water to be praised and even worshipped as a saviour of society by the learned and noble. How deeply ingrained must have been the old faith in medical magic for it to have survived so many centuries and to have thriven even amongst those who have been subject to all the culture of the nineteenth century! In this blind, unreasoning faith in panaceas—the very antithesis of the scientific spirit—we have a striking object lesson, not of the virtues of medicine, but of its weakness, of the triumph of credulity over knowledge, and in the effects of such misnamed "remedies"—of the influence of the mind over the body. It is possible, too, that even we who may wish to deal with diseases in an intelligent manner have inherited traditions and prejudices as regards healing which we are unable or unwilling to cast aside, although we cannot help feeling how little we often really know of the action of drugs in individual cases. This demands a thorough investigation of each case, and an appreciation of the conditions of life and environment which may influence the individual organism, including the tendencies to special forms of disease that may be present in the patient's family. The old practitioner who is familiar with the constitution of his patients and their children is mostly a far better guide than the consultant whose acquaintance with them is probably of not

more than ten or fifteen minutes' duration. I should have liked to trace out in more detail the directions in which it seems to me the medicine of the future will mainly tend; but under the special circumstances of this occasion I forbear to tax your patience or my powers in the pursuit of what after all would be mere fanciful speculations. I therefore hasten to turn to a more prosaic, but to all of us a more immediately pressing, question, that of medical education in general and in this city in particular. The aim of our profession being, as I have indicated, of a twofold nature—namely, to prevent disease on the one hand and to assist the natural powers of recuperation in the deranged or injured organism on the other—it is plain that the basis of all our study must be founded on a thorough knowledge of the laws and conditions of life and of the structure and functions of the body. Starting from this foundation, the next superstructure in the edifice of our art is that of pathology, the sum of all the ascertained facts concerning the mechanism by which diseases are brought about and the effects they produce on the organism. In its fullest sense, then, pathology embraces not only the changes to be ascertained by dissection and microscopic and chemical analysis of the dead body, but also the perversion of the natural vital processes and even the causes or conditions antecedent to the departure from a state of health. It is not for me here and now to criticise the scheme of study which in conformity with the revised regulations of the Conjoint Board we have adopted here. In very many respects it is a decided benefit to the student, who will find that even five years is all too brief to enable him to assimilate all the subjects that are now demanded from him. But I cannot avoid expressing my own conviction that the next step in the improvement of the curriculum must be the relegation to a period antecedent to the strictly medical course of the purely scientific subjects—physics, chemistry and biology. The great merit of the new scheme of study is undoubtedly the prominence it gives to practical work. In almost every one of the branches there are now classes and arrangements to enable each student to find out for himself most of the facts about which he reads in his book or learns from the lips of the lecturer. Time was when this kind of work—the most attractive and the most fruitful—was limited to only one or two subjects. But we live under a new *régime*, and if only it be faithfully carried out it should prove of great advantage. By faithfully sticking to his practical work, whether in the wards, the post-mortem room, the laboratory, or the dissecting-room, his memory will be strengthened, since the avenues to it through the senses will all have been opened up. Then when the examination day comes round the diligent dissector will have his anatomical facts almost literally at his fingers' ends, the patient histologist will see in his mind's eye what he has perceived through the microscope, and the clinical worker will recall the physical signs of the cases he has observed far more readily than he will remember the descriptions which he has merely read. It is surely well in these days, when there is a plethora of text-books and an almost inordinate amount of oral tuition, to remember that the only knowledge which is really *one's own*, that which is of the only real service in practical life, is the knowledge founded on personal observation, upon which we were told of old time that 'the whole medical art consists.' The institution of a final examination in clinical and practical medicine and surgery is a feature of the new scheme of the Royal Colleges which deserves especial mention, and the manner in which the fifth year of study is to be spent should make that period of your career the most interesting of all. It seems to me to give in a fitting manner a completeness to the curriculum not hitherto secured. With a few modifications, which experience may show to be necessary, the course thus laid down by the colleges may without exaggeration be said to be as academic as that of any university, and, this being so, it may seem to be a hardship that it does not lead to the possession of academic distinctions. When thirteen years ago I had the honour of acting in a similar capacity to the present I think that I was sanguine enough to say that there was no reason at all why the majority of the London medical students should not take London University degrees. I thought then—when perhaps the memory of my own student days was more fresh upon me—that one great reason for the singular paucity of London graduates lay in the equally singular ignorance concerning the University which would seem to exist in the schools of the country. But I have learnt since from a wider experience of other universities that this is not the sole reason, for although the number of London graduates is yearly increasing, they still form a small minority of the London students; whereas in Edinburgh the reverse is the case. I take it that the grievance of the London medical student is established."

After detailing the history of the various proposals which have been made regarding the new London University, the lecturer proceeded: "It matters little what the solution is so long as the true interests of learning are kept in view and the welfare of the large numbers who come up to London every year to enter on the study of medicine. The time is approaching when something will be done to relieve the greatest city in the world of the reproach that it has no local organisation for higher education; and to the medical schools in particular one anticipates nothing but benefit from their union on common grounds within the *ægis* of one university. Thereby medical education itself will be rendered more stable and more efficient. It would seem that the spirit of activity and unrest characteristic of the progress of the age is touching the subject in which we are most interested at present. This desire for improvement and perfection is a healthy sign, and although we may be living in the turmoil of transition we can look forward to a more peaceful period when under the new order the training demanded of those who are fitting themselves to be medical practitioners shall be founded on rational and scientific lines; for the desire of all must be that our profession should not fall behind in the race, but should continue as heretofore to lead the van in the great work of bettering the conditions of human existence. And for the individual practitioner a well-conceived and systematic course of training is of much more value than academic honours. If to knowledge he adds the common virtues of sympathy, of gentleness and of strength he will go forth to his daily contact with misery and suffering not only fully equipped for all emergencies and all trials, but with the consciousness that in his little corner of the earth he is doing something to brighten life and to assuage its woes. What higher vocation could be set before him—what could make to him life more worth living? That is the career which opens on many of you to-day, to which we welcome you, and in which we wish you all prosperity and honour."

UNIVERSITY COLLEGE, LONDON.

INTRODUCTORY ADDRESS BY MR. S. J. HUTCHINSON.

"LOOKING at the long roll of my distinguished predecessors, and at all the good and wise things they have said, I feel how difficult it is for me to deliver an address worthy of the occasion. To you I would most cordially say how we all are thoroughly in earnest in our desire to make your career here a pleasant and a successful one, and let me say in all friendliness that I personally, in common with many who have gone before me, look back upon the years I spent here as a student as perhaps the happiest portion of my life. It is a time when there are no responsibilities to speak of and few anxieties, except perhaps 'exams.' The simplest and best way to prepare for diploma examinations is to go in for class examinations. Of course I do not mean simply attending class examinations without previous preparation; but the whole ladder of medical education is arranged in such a manner now that by constant attendance on lectures and demonstrations and by careful note-taking, by working up the notes from text-books afterwards and by a rigorous attendance on the class examinations, the whole thing is made much simpler; the subjects, despite their increased number and extent, are more easily mastered and take a firmer hold on the memory, and are thus more available when wanted than when acquired by that pernicious system of spasmodic work, and still more by the popular but fallacious system of 'cramming' during the last few weeks before an examination. Since we met here last year many most important events have happened, not only in our college and hospital, but in the medical world generally. First of all, let me say that the building of the new hospital over the way may before long be confidently expected. A portion of the new hospital will probably be erected in the rear of the present buildings, and when completed patients would be transferred to it and a part of the old hospital removed to make room for further buildings. It will thus be seen that the number of beds will at no time be diminished nor the work of the school retarded in any way. Now, I do think all of us who are interested in University College, particularly those to whom the future belongs, must rejoice at this prospect and must feel a debt of gratitude to the

hospital committee, by whose zeal and untiring devotion this great work is so nearly consummated.

"The next important events which have happened since last year at this time are the reports of the Lords' Committee on Hospitals, and secondly the coming into force of the five years' curriculum for the Conjoint Board, and again the mountain has gone on labouring, but it has not yet brought forth the M.D. degree for London medical students. Let me urge upon every one of you the importance of striving for the 'best possible,' that is to say, make up your minds that you will take the highest degrees attainable—the M.D. or M.S. London, or the M.R.C.P. or F.R.C.S. Those of you who have had the incalculable advantage of a University career cannot be too thankful to your parents whose generosity and wisdom have given you this privilege, and you cannot better show and prove your gratitude than by turning such a training to its greatest advantage. There is always a certain fear of medical students acquiring a hospital manner, which however efficacious it may be in the exigencies of hospital practice, certainly does not suit in private practice. And this leads me to take advantage of this occasion to recommend you, gentlemen, at the outset of your career to cultivate a spirit of consideration towards the patients whom you are called upon to deal with during your studentship, and to behave towards them as far as possible as you would towards your own patients in private practice. You must forgive me if I allude to this, because I know from my own experience how easy it is to acquire certain little acerbities of manner which are meekly borne by the hospital patient, but which would be effectually resented by a private patient. Martial, the Latin poet, has said—

> 'I had, oh! Symmachus, a simple pain—
> You came, a hundred students in your train;
> A hundred probing fingers felt my brow;
> I had no fever then—I have it now!'

Besides all this, there are certain things to which it is worth your while to pay special attention. Need I say that I mean anatomy and physiology? To these I would add pathology in its widest sense. Without a thorough knowledge of these, the sciences of medicine and surgery are simply the 'baseless fabric of a vision.' It is well also to pay special attention to the art of prescribing. I say 'art' advisedly, for whilst brilliant skill in surgery—the *tactus eruditus* of the master—is the fine art of surgery, so is an efficient and palatable prescription the fine art of a skilful physician. I have alluded already to the burning question of a degree in medicine for London medical students. Now, the solution of this difficulty appears very simple, and I submit the suggestion for your earnest consideration, for probably the consummation will be in your hands, and not in ours. I say the solution is simply this: Let every medical practitioner who has duly gone through the curriculum ordained by the Medical Council and who has passed finally in medicine, surgery, and midwifery be thereafter legally entitled to style himself 'Doctor,' just as every clergyman or minister who has fulfilled the prescribed ordinances is styled 'Reverend.' The case is absolutely on all fours, and it would save an immense amount of trouble. I am aware that this scheme does not provide a university degree for London medical students, but it does provide a title for them, which they would not have to go away from London to procure. The State insists upon the medical student undergoing a five years' curriculum of severe study; it compels him to pass difficult examinations at all periods of his career, and then, when he has done everything and satisfied everybody and got his degree or diploma, what does the State do for him? Does it protect him in any way against the bonesetter, the herbalist, the medical electrician, the mesmerist, the midwife, or prescribing chemist, or the legion of American and other foreign gentlemen with a maybe bogus degree? Does it give him one single advantage over these gentlemen beyond allowing him the privilege of suing for his fee in the county court or being exempt from juries, of being placed on the Medical Register, of holding certain public offices and, most glorious privilege of all, it allows him to sign the death certificate when, 'at the last stage of all,' he is called in with the forlorn hope of restoring new life to the victim maybe of one or other of the practitioners I have named above. Now, I maintain that this is carrying the liberty of the subject a trifle too far, and I think the day is not far distant when it will be impossible for any of these gentry to practise any form of the healing art unless they are entitled to register.

"It would be well now to consider what the medical student had best do when he shall have duly and fully qualified, and he will probably by that time have discovered whether he has developed any particular taste for, or proficiency in, any branch of the science of medicine or surgery, or if he prefers to work at some scientific subject, such as anatomy, physiology, or bacteriology. To those of you who desire or determine to become general practitioners, and such it is to be presumed the majority of you do, I should like to refer to the introductory address given here by Professor Victor Horsley in October, 1891, for you will there find some very practical and useful advice bearing on this subject, which it would be superfluous to reiterate. But there is one branch of practice which provides at this time a very satisfactory opening for such of you as are possessed of manual dexterity. The opening is afforded in dental surgery, a diploma being granted by the Royal College of Surgeons throughout the kingdom. Now, gentlemen, students of this college, you are singularly favoured in your opportunities for acquiring a knowledge of dental surgery on account of our proximity to two dental hospitals, one in Leicester-square and one in Great Portland-street. In face of these advantages it does not seem desirable for University College to follow the example of Guy's Hospital and establish a dental school within our halls, for whilst Guy's Hospital was more than two miles from any dental school, we are less than a mile from two. Perhaps enough has now been said about the student's work; let us devote a short time to the student's play. The advantages of a judicious admixture of play and work are so obvious that it is needless to dilate upon them. It is, however, the judicious admixture which is so important, for, like Mr. Pickwick's punch, it is possible to have too much of a good thing, and all I would venture to ask of you is this: do not neglect healthy exercise, but do not let it encroach on your work too much; go in for cricket, football, tennis, cycling, boating, anything you like, but play them for the love of them, not for 'cups' and 'pewters,' and, above all, do not in your games overtax your strength.

"I should like before I conclude to say one word about the invaluable help which physician and surgeon alike derives in the successful practice of their profession from skilful and attentive nursing, and whether in the hospital or the home, the nurse is almost as essential as the doctor, but only so far as she understands how to properly fulfil the instructions of the medical men. With regard to the social position of the medical man I am convinced that it depends entirely upon the man himself in the first place, for his education and his degrees or diplomas place him in the order of gentlemen, and it is his conduct and demeanour alone, which will enable him to remain in that honourable position or not, and to enjoy all its privileges or to be ostracised. Sir Thomas Watson once said on an occasion like this: 'The profession of medicine having for its end the common good of mankind, knows nothing of national enmities, of political strife, of sectarian divisions. Disease and pain, the sole conditions of its ministry, it is disquieted by no misgivings as to the justice or honesty of its client's cause, but dispenses its peculiar benefits without stint or scruple, to men of every country and party, and rank and religion, and to men of no religion at all; and like the quality of mercy, of which it is the handmaid, "it blesseth him that gives and him that takes," reading continually to our hearts the most impressive lessons, the most solemn warnings.' Surely you will not dare without adequate preparation to embark in such a calling as this, so capable of good if rightly used, so full of peril to yourselves and to mankind if administered ignorantly or unfaithfully. If you should be successful let it not make you presumptuous, but remember that in your most successful efforts you are but the honoured instrument of a Mightier Power—that, after all, it is 'God who healeth our diseases, and redeemeth our life from destruction.' In conclusion, let me again offer in the name of the Faculty of Medicine of University College a hearty welcome to those who join us to-day, good wishes to those who are in the midst of their work, and Godspeed to those who are going out into the world."

WESTMINSTER HOSPITAL.

INTRODUCTORY ADDRESS BY DR. MERCIER.

DR. MERCIER reviewed the altered relations of the medical profession to the public, first in regard to the relations of the individual doctor to each patient and then the relation of the profession as a whole to the rest of the community. In the first relation he remarked how the intercourse of doctor and patient had become less oracular and more confidential; how

the indiscriminating *sic volo sic jubeo* of the doctor had given place to a code of instructions whose reasons were imparted to the patient; how in the treatment of disease the doctor no longer contented himself with administering two tablespoonfuls of physic three times a day, a mode of treatment often little superior to that of wearing an amulet round the neck, but sought to take the whole mode of life of the patient into his hands and to modify and regulate it in accordance with the new conditions that the malady requires. The old view of disease that was now passing away regarded the patient as a body, some organ of which was deranged in its working. The new view regarded the patient as an acting, thinking, feeling man, whose power of acting, thinking and feeling was impaired and needed to be restored. The notion that our predecessors had of the body was much like that an intelligent outsider might obtain of some great engineering workshop. They knew and understood nearly as well as we do the structure and working of the various organs of the body, of the machinery by which the work of the body is done; what they failed to appreciate was the nature and mode of action of the power by which the machinery was actuated and the work of the body performed. It is the working of this power, which resides in the nervous system, to which attention is now being directed, and the study of nervous action is rising continually more and more into prominence. Among the results of our increasing knowledge of the action of the nervous system and the altered views that begin to prevail with regard to what may be termed diseases of the body politic—maladies affecting the community itself—by which is meant not widespread maladies affecting large numbers of individuals, such as influenza or cholera, but disorders of the community which may coexist with a good standard of health in the individuals of which the community is composed, disorders which impair the efficiency of the social body, which impede it in its struggle to maintain its place among the nations, which diminish its welfare and retard its progress. Such social maladies are crime, pauperism and insanity. The lecturer contended that, different as these conditions are in superficial features, they exhibit upon close investigation such substantial similarity that they may be regarded as several branches of one stock. The pauper, the criminal and the lunatic are alike, it was contended, in being stragglers from the great army of civilisation. They have failed to keep pace with the great moving body to which they belong. They have fallen hopelessly to the rear and will perish by the wayside unless they are gathered into one of the three great ambulances that civilised States provide for their wounded and their inefficient, and which are called respectively the workhouse, the lunatic asylum and the gaol. An examination of the inmates of a workhouse would show that, exclusive of the sick, the children and the aged who might be termed accidental paupers, the remainder, or essential paupers, were so by reason of some defect of constitution, some want of intelligence, or of stability of character or some infirmity of temper or passion which, on the one hand, vitiates their capacity for labour or makes their labour unremunerative, and, on the other hand, allies them to the insane. A large proportion of these essential paupers will be found to be or to have been criminals, and a larger proportion to possess the instincts and habits of criminals. Of criminals, all, so long as they are in gaol, are of course paupers in fact, and a disproportionately large number are found to have obvious mental defects. In addition to these individuals, who border, and more than border, on insanity, it has been established beyond cavil by Lombroso and the school of criminal anthropologists that the criminal man is of a different physical organisation from the normal man, and resembles the lunatic in many respects. Lastly, while every insane person is potentially a pauper—that is to say, is incapable of supporting himself continuously by his own labour, all or nearly all the insane are potential criminals also; that is to say, their appreciation of their duty to their fellow men is so dim or so distorted that but for the restraining influence of asylum life they would bring themselves within the purview of the criminal law. It was further pointed out that there is a constant transference of individuals from one class to the other, and that the majority, for instance, of the insane have passed through the workhouse or the gaol; that while our gaols are being closed for want of inmates and pauperism is diminishing relatively to the population, lunatic asylums are being extended in all parts of the country. Finally, it was contended that the same remedial agent—compulsory employment—was used, and was found efficacious in each of the three disorders; so that the poet's dictum, that "the lunatic, the lover and the poet are of imagination all compact," should read "the lunatic, the criminal and the pauper." The practical bearing of the view advocated was to be found in the modification of treatment that would follow if the close relationship of the three maladies were admitted. The process for admitting a lunatic to an asylum has already been assimilated to that for committing a criminal to goal. In both cases the detention is for a definite period, and at its termination the patient is discharged, quite irrespective of the state of his malady at the time. In the case of the lunatic the patient could be further detained if, in the opinion of his physician, he was not sufficiently recovered to render him a fit person to be entrusted with his liberty. In the case of the criminal this provision did not exist, and herein the criminal had the advantage of the lunatic; but whether the arrangement was equally advantageous to society was another matter. It was certain that if the reclamation of the criminal was to be effected the period of his detention must be indefinite in duration and must depend on the amelioration of his character. The value of these speculations from a medical point of view was claimed by the lecturer to consist in the broadened and more accurate conception that they afforded of the nature of insanity and allied disorders. It was not by poring through the microscopic that man could ever discover the reason for the existence of a delusion or be able to account for disorders of conduct. The explanation of such phenomena are to be found, not in visible structural peculiarities, but in the operation of biological and sociological laws; not in alterations of the brain, even though such alterations exist; but in the ancestral history of the individual, and in the complex interactions between the forces that animate him and the conditions in which he is placed. The lecturer concluded by inferring from these instances of non-success in life, the conditions that were necessary for success, and dealt with the respective shares of intellect and character in conducing to this result, cleverness, he said, was becoming commoner every day; it was almost a drug in the labour market. But character retained and would always retain its value. Strength of character, energy, courage and integrity were priceless qualities. They cannot be gotten for gold, neither shall silver be weighed for the price of them, and while men of brilliant intellect fail every day, men with these qualities can always command success.

THE COLLEGE OF STATE MEDICINE.

INTRODUCTORY ADDRESS BY SURGEON-GENERAL W. R. CORNISH, C.I.E., Q.P.H.

"THE medical schools of this country have a good old custom of opening the medical year with an introductory lecture, in which the students are advised as to what they should do and avoid doing in their training for the medical profession. In the course of my remarks I shall endeavour to give you a brief account of the origin and progress of the College of State Medicine and the aims of its founders, and to review from an independent standpoint the position and prospects of the public health medical service of this country; and, lastly, I shall submit to you a few observations regarding the great cholera epidemic, which is only kept at bay by the indefatigable vigilance and labour of our port and sanitary authorities. The College of State Medicine, in which we are to-day assembled, was established in 1886 and incorporated under a certificate from the Board of Trade in the year 1887. Its main objects are defined in the articles of association. The founders of the College of State Medicine may take this amount of credit to themselves, that they saw the defect in the existing system of education for public health officials and endeavoured to remedy it long before the General Medical Council framed its regulations for the granting of diplomas in Public Health. Since the General Medical Council has laid down rules for the guidance of medical men seeking to obtain Public Health diplomas—that is, in regard to all medical men registered subsequently to Jan. 1st, 1890—a large number of the London and provincial medical schools have established departments of teaching in public health, whether wisely or otherwise it is not for me to say; but the scheme of public health instruction adopted by the College of State Medicine has been followed by more than one of the medical schools, and as imitation is said to be the

sincerest form of flattery, the College may congratulate itself on its pioneer efforts being appreciated, even if the appreciation has taken the form of rivalry. Competition in sanitary education is, however, no evil in itself, and in the long run those institutions which combine the best theoretical with practical teaching will maintain their position; but it may be as well to state clearly that as not one medical man in twenty ever dreams of studying for a Public Health diploma, the multiplication of public health departments in medical schools is likely to result in financial loss to the organisers as well as a waste of teaching power. So far the founders of the College have limited their operations to the establishment of an institution for the training of gentlemen for the duties of health officers, and affording instruction in the methods of bacteriological research, but they do not intend to limit its operations to these subjects. State medicine includes more than hygiene and bacteriological inquiry, and the Council have only been deterred, by want of funds, from taking up other important work coming under the description of 'State Medicine.' There is, for instance, the very important subject of Mental Pathology, in which the great bulk of the members of the profession are but imperfectly trained, and in which a professorship would be desirable, if the Council could see its way to its establishment. Then, again, there is the great subject of Medical Jurisprudence and the investigation of cause of death by unnatural agencies, which subjects are supposed to be studied in the ordinary curricula of medical schools; but the daily reports of inquests appearing in the papers show these subjects to be very imperfectly taught, and more definite and practical teaching seems to be desirable. If only a fraction of the enormous wealth of this country, flowing in the broad streams of waste and prodigality, could be diverted to the narrow channels of education in sanitary principles and practice, the future of its inhabitants would be brighter and happier than it now is. A gentleman who prefers to remain anonymous has placed at the disposal of the College a sum of money sufficient to found a research scholarship for one year, and a candidate will be appointed in the course of the present month. The study of public health questions by the medical profession generally has been discouraged by the supineness or inaction of the recently appointed county councils, who, in the exercise of their authority, have not deemed it necessary, in the majority of instances, to avail themselves of their powers of appointing supervising medical officers of health of their respective areas. The 'may' of the English Local Government Act of 1888, instead of the 'shall' of the Scotch Act of 1890, has had the effect, temporarily at least, of discouraging medical men from qualifying for a public health career, and the neglect of local authorities to consolidate some of the smaller areas into workable districts sufficiently large for an officer giving his whole time to public health duties has still further tended to prevent men from devoting their attention to this branch of professional work. Although provision for the public health is more advanced in this country than in any other, it must not be concluded that everything has been done that might be done to ensure the health and longevity of the people. Legislation hitherto has aimed at throwing all the burden of provision for public health duties on local authorities, but it has not, in my view, adequately met the difficulty of insisting on local authorities respecting and practising the regulations laid down for their guidance. It is true that with well-grounded apprehensions of the approach of cholera an effort has been made to ascertain, by actual survey, the sanitary condition of many of the chief ports in regular communication with infected areas abroad. But this work ought to be undertaken, not only in regard to our first line of defence, but throughout the 1500 areas into which our sanitary defence is split up. Without in any way lessening the responsibilities of local authorities as defined by law, it is of the greatest importance that this sanitary survey of the country should be undertaken by the central Government and carried out on a defined plan. The great need of our sanitary system, in fact, is a closer touch between the controlling agency and the local authority. The vaccination laws of this and other civilised countries have been instituted in the general interests of the population, and for the protection of the public health, and where followed have succeeded in holding small-pox in abeyance, but experience has shown that these laws are systematically evaded by an increasing section of our people, and that many local authorities fail to use the legal powers entrusted to them for the public protection. The vaccination laws may or may not need amending, but a very bad example is set by those local authorities who permit the law to be defied with impunity. All sanitary legislation must necessarily fail of its object if the fad or caprice of the individual is to be allowed to endanger and injure his neighbours. And this brings me to the consideration of the relations between the executive of the public health service and local sanitary authorities. In speaking of these relations I only attempt to give an individual opinion, biased, probably, to some extent by Indian experience. It is in accord with modern principles of legislation that the responsibility for obeying the law should rest with the local authority. The evil seems to be that the sanitary executive of the Government can take no steps on its own authority unless complaint is made, and supported by evidence, of neglect of the local authority. The Local Government Board has to deal with some 1500 local areas, some densely populated, and others very sparsely so. The consolidation of these areas and the employment of health officers unconnected with private practice, would seem to be a preferable way to carry out thoroughly the provisions of the Public Health Acts and of ensuring that sanitary supervision the public have the right to enjoy. In an ideal public health service we might expect to find all candidates entering by one portal, and liable to serve wherever the controlling authority might direct, the officers of the department being graded in accordance with the importance of their several spheres of work. In such a service we should expect the appointments to be permanent, subject to good behaviour, with a provision for retirement and old age; and although the local area should not be relieved of contribution towards the expense of such an ideal service, it should, in my opinion, have no voice in the choice or selection of the health officer, who should belong to a department presided over by a minister of health. It may be perhaps regarded as a sign of better times for men engaged in public health labours that the present Government has been pleased to appoint a member of the profession to the office of Parliamentary Secretary to the Local Government Board. In Sir Walter Foster we have a clear-headed and most excellent man of business who will bring the experience of a long professional life and sound acquaintance with the principles of sanitary legislation to the discharge of his new duties, and it is to be hoped to the amendment and improvement of the machinery of sanitary inspection and control. The epidemic of cholera which has been trying, so far in vain, to effect a lodgment in this country is one of peculiar interest to the student of epidemiology, and I will ask your attention for a brief space to discuss some of its features in relation to the probabilities of Great Britain being brought within the sphere of its influence at a later date. The present epidemic is perhaps the most remarkable of any that has been noticed, and, so far as its history is known, has moved faster than any previously recorded overflow into Europe from 1831 to the present time. All cholera epidemics, whether in India or Europe, have certain definite features as to time and place. There is in every case a period of invasion, a period of rekindling or recrudescence, and a period of decay, and these periods are usually completed within three years, when the contagium, or morbid material, appears to have exhausted its powers of reproduction, or for some other reason ceases to be active. Late information shows us that cholera was prevalent and fatal in Northern India about the end of 1891. It was certainly prevalent and fatal at the Hurdwar pilgrim gathering in March and April of the present year. It passed on to Cashmere in May and seems to have been most deadly in Afghanistan in April and May, from there to Persia in May and June, and crossing the Caspian Sea by trade routes it spread very generally throughout Asiatic and European Russia, and, attacking the German port of Hamburg in August, has, as the daily press keeps us informed, been carried to our own shores, and with almost the same rapidity across the Atlantic. It is the peculiarity of an invading epidemic to push on rapidly through new or uninfected populations. The movement is influenced by season and probably largely by temperature, for it never seems to be able to accomplish much headway during periods of frost and snow, but in the portion of country invaded by cholera seasonal changes bring about a revitalisation, or renewal of activity, and the epidemic may be more diffused or general in the second than in the first year of its introduction. The third year of a cholera epidemic is not so easy to describe. It may appear only in scattered localities and often in places but slightly or not at all affected in the first or second season, but in scarcely any locality does it survive beyond

the third year. The cholera invasions of Europe since 1866 have been mostly the fag ends of epidemics with no great vitality or inherent force of pushing on into new localities. Of this character probably was the cholera of Egypt of 1883 and of Spain in 1885-6. Of the enormous force and vigour of the present epidemic, the circumstances for its propagation being favourable, we may judge from what has occurred at Hamburg, where, out of a population of 600,000, the deaths from the middle of August up to date have been between 9000 and 10,000. The diffusion of cholera in Russia appears to have been very general from the capital on the Baltic to the Siberian coast and from the Caucasian districts to the extreme habitable north. With an epidemic so widely diffused it may be asked, Is it not possible that the germ or contagium may be exhausted in a single season, and that there may be no recrudescence in 1893? One would like to believe in such a possibility, but such belief would be in direct variance to the recorded history of previous epidemics of invasion which have not so quickly exhausted themselves. We are still very ignorant of the intimate nature of the cholera poison, but successive waves of epidemic invasion have taught us this much, that while no two epidemics are precisely alike in all points, yet in their main features there is very little difference between one epidemic and another. As cholera makes itself evident to us in one epidemic, so it will do in the next and the next, and from this peculiarity of the disease it is quite safe to anticipate that cholera invading a locality in any one year after a long period of absence will not absolutely leave that locality in the season of its invasion, but will remain to be revitalised, increasing or decreasing in accordance with surrounding conditions; so that those who look forward to seeing Europe clear of cholera in 1892 base their anticipations on some hazy notions in their own minds, and not on historical data. To have a clear perception of this feature of cholera is all important to sanitary officials. It teaches them that vigilance and precautions cannot be safely relaxed on the temporary cessation of local outbreaks, and that the measures necessary for the protection of the public health will have to be persevered in steadily while there is the possibility of an epidemic revival. The probability of keeping cholera out of this country and America is a question that comes home to all of us, and so far the first attack of the enemy in both countries has been, thanks to the splendid service of the port sanitary authorities, repulsed. The great danger I apprehend may occur on the relaxation of the precautionary measures and when the seasonal revival begins abroad. Now if there is one fact better established than another it is that the dejecta of a case of painless diarrhœa introduced into a new locality may be the means of a subsequent outbreak of cholera in such locality. In epidemic seasons like the present sanitary authorities cannot afford to give heed to names which tend to minimise danger. Such names ought not to be used in official reports of cholera. Their use is due chiefly to imperfect diagnosis and to the idea that every fatal issue of cholera must necessarily be preceded by collapse, cramps and suppression of urine, whereas a very considerable number of persons actually affected by the cholera virus never reach these stages of the disease, though the discharges from their bodies may, under certain conditions, be just as infective as those of the more advanced cases. It is in regard to the very insidious approach of cholera through the form of what may be thought a simple derangement of the bowels that communities in this country are most liable to become infected. We want and must continue to urge a sanitary stock-taking of the country, not by local officials according to their own notions of sanitary provision, but by an independent staff accustomed to such work. That a very large number of sanitary areas will pass such an ordeal with flying colours I make no doubt, but that a still larger proportion will be found defaulting in one or more particulars as regards the public safety is also, I think, very probable. At the present juncture we do not want to wait for the appearance of cholera, to hold investigation, but to determine by careful survey whether local areas are safe or unsafe as regards their sanitary arrangements. The sanitary survey of which I speak ought most certainly to include an account of our rivers and streams. The way in which our water sources have been treated is a standing disgrace to the country. Numberless commissions and committees have reported on the pollution of rivers, but practically nothing is done to remedy the evils resulting from manufacturers turning their waste products into running streams and the use of such streams as sewage receptacles. Clean, wholesome water is as much a necessity of human life as clean, pure air, and the defilers of both have much to answer for in regard to preventable sickness and premature death. In the preventive medical service of your country you will find ample scope for all your best energies. You deal with human life in the aggregate, and whatever you may be able to effect, in the way of attaining higher standards of cleanliness, in air, food and water, will be for the benefit of thousands, instead of the units who fall into the hands of the practising physician. You will lose no opportunity of advancing your knowledge or of applying the daily advance of science to the perfecting of your methods; and if ever the glorious time is to come when men and women shall die of old age, just as ripe fruit falls, and enjoy long and healthy days, you will have the satisfaction of knowing that sanitary science, which has already appreciably added to the longevity of human life, and to which you give your loving duty and service, has been the chief factor."

THE ROYAL VETERINARY COLLEGE.

INTRODUCTORY ADDRESS BY PROFESSOR MCFADYEAN.

THE lecture was devoted to a review of the growth of veterinary pathology during the past twenty years. The lecturer said that there was no exaggeration in the statement that within the period specified veterinary science had made a greater advance than it did during the preceding eighty years. Every branch of veterinary knowledge had shared in this advance, but in none had the progress been so rapid as in the domain of pathology. Pathological research had discovered new diseases, had revolutionised the views formerly held regarding many others, and was pointing the way to methods of cure and prevention that were scarcely dreamt of two decades ago. Taking as an illustration tuberculosis, it was pointed out that twenty years ago this disease was generally ascribed to some mysterious quality of the tissues in certain breeds and individuals, in consequence of which almost any irritant, such as would in other individuals excite merely a transitory inflammation, might serve to light up a degenerative or destructive process capable of spreading throughout the whole body. It was not then generally admitted by veterinary surgeons—in this country, at any rate—that it was contagious or infectious, but they believed that the disease might be generated in various ways, such as by close breeding, exposure or improper feeding. At the present day, on the other hand, they had no need to speculate regarding the cause of tuberculosis. It had been proved beyond the possibility of doubt that tuberculosis was caused by the introduction into the system of a vegetable parasite or germ, and the disease had now to be classed with the contagious maladies. They knew further that tuberculosis was identical with the disease termed "consumption" in the human subject, and they had to reckon with the possibility of the disease being transmitted from the one species to the other. Anthrax afforded another illustration of the revolution which had been effected regarding the cause of important diseases. In text-books published less than twenty years ago anthrax was vaguely described as a disease in which there was a sudden change in the physical characters and physiological properties of the blood. It was believed that it originated spontaneously, and that geographical, climatic and dietetic conditions played an important *rôle* in its production. Furthermore, it was regarded as a disease that assumed many forms, the two best known in cattle being splenic fever and black leg. Every one of these notions has had to be discarded. Anthrax was now known to be, like tuberculosis, a disease that owned but one cause—viz., the entrance into the body of a vegetable organism—the anthrax bacillus. The so-called black leg, formerly regarded as a form of anthrax, was now known to be a perfectly distinct disease, caused by another bacillus, which, broadly speaking, was as different from the germ of anthrax as a sheep was from a goat. Glanders, again, was a disease regarding whose cause they had acquired positive assurance only within the last few years. It, too, was formerly regarded as a disease that had various causes, and that sometimes originated spontaneously, but it was now known that every case of glanders was due to infection with a germ derived from some antecedent case of the disease. But perhaps the disease regarding whose nature and cause the most complete revolution of opinion had been effected within the past few years was tetanus or lockjaw—a disease which, from the suffering that it caused and its almost invariably fatal termination, ranked as one of the most terrible maladies of man and the lower animals. In books

published twenty years ago there could not be found the barest suggestion that this disease might be due to a germ, and yet it was well known to-day that the locking of the jaw from which the disease derived its popular name was due to the action of a deadly poison elaborated in the wound by a bacillus. After referring briefly to actinomycosis, strangles and other diseases the causal microbes of which had recently been discovered, the lecturer proceeded to notice how much knowledge had been gained regarding the means of curing and preventing diseases by a minute study of their pathology. It was a truism that the discovery of the cause of a disease was the first step towards the discovery of the means of cure or prevention. It had, perhaps, to be confessed that the discovery of remedies has yet lagged a long way behind the discovery of causes; but still, magnificent results had already been achieved in the case of some diseases. As an example, the Pasteurian method of protecting animals against anthrax by means of attenuated cultures of the anthrax bacillus was cited—a method which, it was stated, had during the last ten years saved many thousands of pounds annually to the stock-owners in France. Similar methods had, with more or less success, been applied to combat several other diseases. At the present time they appeared to be on the threshold of still greater discoveries regarding the means of combating diseases that had hitherto defied every therapeutic effort. It had recently been shown that it was possible to protect even horses against tetanus by the use of what was termed a "chemical vaccin," and the blood serum of animals thus protected was found to be capable of conferring immunity when injected into other animals. What was still more remarkable, and pregnant with promise of the most beneficent results to both man and the lower animals, it had been discovered that the blood serum of horses thus artificially rendered immune against tetanus was actually curative when injected into animals affected with tetanus. But even in those cases where the discovery of the cause of the disease had not yet been followed by the discovery of anything of the nature of a protective or curative "vaccin," the position to-day was infinitely better than before. Take, for example, the case of tuberculosis. There was unfortunately no known cure or preventive for that disease, but the discovery of Koch's bacillus and the study of its life-history had given clear notions regarding the manner in which the disease was spread, and pointed the way to confine its ravages, and possibly even to stamp it out. In the concluding part of the address Professor McFadyean discussed the place that the study of pathology ought to occupy in the education of the veterinary student. He said that it was time that they gave up the notion that every veterinary surgeon who "knew a horse" and could diagnose lameness was a "good practical man." The veterinarian who wished to deserve that name could not afford to be ignorant regarding pathology or bacteriology. At the present day a veterinary surgeon might easily bring discredit on himself and even endanger human life through errors in diagnosis from which a little bacteriological knowledge might have kept him free. It would be folly to expect every veterinary graduate to be able to carry out a difficult piece of pathological research; but although it was not expected that a veterinary practitioner should be able to carry out a chemical analysis in a case of poisoning, the study of chemistry was considered a most essential part of the veterinary curriculum. And so it ought to be with pathology, which deserved to be taught, theoretically and practically, to as full an extent as chemistry or any other branch of knowledge included in the professional education. At the present time this was not possible, for the simple reason that the three years of study prescribed did not admit of justice being done to the teaching of pathology without curtailing the time that had to be devoted to other subjects. The present was the last session during which a student could enter under the three years system. After that the veterinary curriculum would extend to four years, and every teacher ought to hail with satisfaction the near advent of the new arrangement, under which it would be possible to give a course of instruction in keeping with the times and adequate to the requirements of modern practice. Allusion was also made to the foundation of the chair of Comparative Pathology in the Royal Veterinary College by the Royal Agricultural Society. The lecturer said that this step could not fail to give a much needed stimulus to the study of veterinary pathology in Great Britain—a study which could not fail to bring knowledge of great value in their struggle with animal diseases, and which might also throw light on the cause and treatment of human maladies.

OWENS COLLEGE, MANCHESTER.

INTRODUCTORY ADDRESS BY DR. BROADBENT.

THE lecturer took as the subject of his address the Intellectual Interest of the Study and Practice of Medicine. Prefacing his remarks by an appreciative reference to the late Professors Morgan and Ross, he gave a rapid summary of his reminiscences of Manchester medical schools, and then entered on the main question he set himself to discuss. "What," he said, "are the conditions of happiness in a man's life, and how far are these satisfied by a medical career? The first is satisfaction of the ordinary wants—the enjoyment of the simpler comforts and freedom from care for the future of himself and his family. Unfortunately, I cannot say that the medical profession affords all of us such a livelihood as to assure us from pecuniary anxiety and the means of providing for a family; but I can say that the general level of comfort and security among medical men is high and the proportion of wrecks and failures low. What is it which, to those who are mentally and morally fitted for it and who enter it from genuine inclination, makes the medical profession the happiest career a man can choose? For such it really is. To this I answer, first and foremost the opportunity for free and continuous exercise of the intellectual faculties. With the elevation of the race have been developed intellectual appetites. There is a hunger and thirst after knowledge and a passionate desire for achievement, and the pleasure and satisfaction attending the attainment and employment of knowledge are as much higher and more durable than the gratification of the senses as mind is higher than body—as intellectual operations are superior to sensation. All the sciences are laid under contribution by medicine. As you master the principles of chemical structure and affinity, as you come to understand the relation between chemical action and the absorption or evolution of energy, thermal, electrical, and nervous, your ideas are enlarged, your imagination is excited, and the intellectual interest is awakened, which is gratified at each further step you take, but never satisfied. Pathology at the present moment surpasses in interest every other department of study and research. For a long time it was almost identified with morbid anatomy, and concerned itself chiefly with results; but it has emerged from this stage, and the attention of the new school of pathologists is concentrated upon processes, and the method of experiment in their hands is yielding results of surprising value and importance. The discussion before the Pathological Society on phagocytosis was as exciting as a debate in Parliament, and the combats between the cells and invading bacteria as realistic as one of Homer's battles. A septic wound is made, the leucocytes crowd to the spot, block up the avenues by which the hostile bacteria seek to gain entrance into the lymph spaces, and engulph and destroy them, the bacteria at the same time multiplying with amazing rapidity, and endeavouring to disintegrate the cells and to force a passage. This local war is defensive inflammation. If from any cause—the amount of virulence of the infective inoculation, or, in other words, the number, character or activity of the microbes, or, on the other hand, the imperfect afflux or defective vigour of the phagocytes—that is, the inadequate local reaction—the line of demarcation and limitation is imperfectly drawn, the microbes obtain access to the circulation, and in the blood and fluids find an unlimited supply of food and unbounded opportunities of multiplying. It has been known ever since post-mortem examinations were first made or dissection was practised that if a dissection wound were followed by inflammation and abscess the mischief would probably not go further, but that if there were only a little pain at the seat of the cut or puncture, while the lymphatic channels and glands became swollen and painful, fatal septicæmia or pyæmia was probably impending; but it is only now that the defensive process can be understood and explained.

"When I was a student the name zymotic disease had, it is true, obtained a footing in medical terminology, but under protest from many distinguished men who distrusted theory of all kinds. It was pointed out that the analogy between the action of yeast on a solution of sugar and the course of a fever was but weak at best, and was open to the objection that the successive stages of incubation, invasion and decline might represent not the life and work and organism in the system, but the stages of the reaction of the system. Especially were we warned against basing treatment upon such uncertain grounds. Now we know that the parallel holds good down to the smallest particular, just as the yeast grows and

multiplies with extraordinary rapidity, splitting up the sugar into carbonic acid and alcohol till its further progress is arrested by the alcohol which is a product of its own activity, so the bacteria multiply at the expense of the fluids of the body, form ptomaines which, like alcohol, act as poisons to the nervous system, and which, again, like alcohol, bring the action of the microbes to an end. Our methods of protection against fevers are now entirely derived from definite knowledge of the life-history of the bacteria or microbes by which they are caused, and our treatment will be more and more determined by such knowledge. We are shown, also, how the defensive processes may be reinforced or impaired. It is well known that drunkards fall ready victims to fever, erysipelas, and septic diseases generally, and the general deterioration of the tissues produced by alcoholic excess has been accepted as a sufficient explanation. But this, while true, is not the whole truth. A bacteria culture of a given kind and degree of virulence is injected under the skin of a rabbit, local inflammation, and perhaps abscess follows, but the animal does not fall a victim to the poison. In another rabbit, or in the same at another time, an injection of the same kind is made, but simultaneously a dose of chloral is injected into some remote part of the body; the local reaction is imperfect, general infection rapidly takes place, and the creature very soon dies. What is the reason? It is that chloral paralyses the leucocytes. They cease to display their wonted activity; examined on the warm stage, instead of pushing out pseudophobia in every direction and undergoing frequent changes of shape, as is observed in the normal state, they are sluggish and retain a spherical form. When bacteria, therefore, are introduced into the subcutaneous tissue, they take no notice of them, but remain perfectly passive, and leave the way open into the lymphatic spaces, whence the invaders pass into the circulation, carrying distruction to every organ of the animal's body. Now alcohol in excess has a similar action on the leucocytes, and this, as well as the deteriorating influence on the tissues of chronic alcoholism, predisposes to septic infection. A single debauch, therefore, may open the door to fever or erysipelas. Protective inoculations against various diseases have been discovered, and had it not been for the ill-judged restrictions on experiment which have deprived this country of the precedence in research which would have been earned for it by the zeal and insight of our young experimental pathologists, we might perhaps already be in the possession of protection against scarlet fever, diphtheria, and other diseases, which would do for this country in saving the lives of children what has been done for France in protecting sheep and cattle from anthrax, preventing the loss of hundreds of thousands of pounds to its agriculturists. We have at length, thanks to experiments on animals, learnt the true nature of phthisis and how it is propagated, and we can now not only direct our efforts to strengthening the constitution so as to render the soil unfit, but to the destruction of the seeds. In this respect Owens College, as represented by Dr. Ransome, occupies a leading position. Here our difficulty will arise from the apathy and carelessness of individual members of the committee. In politics, and in all other departments of public life, no honourable antagonist thinks of imputing motives. In experimental pathology all our motives are found for us, one worse than another, and we are allowed no credit whatever for a desire to alleviate the sufferings of men and animals; the very highest motive with which we are credited is scientific curiosity, and by this is really meant scientific cruelty. You may drown a superfluous puppy, but if you do it with a view to experiments as to how animation may be restored, you place yourselves within the grasp of the law.

"Scepticism in the sense of a general disbelief in the efficacy of remedies, which was formerly not uncommon, and was, indeed, the mark of the 'superior person' in medicine, becomes every day more unjustifiable. At one time, indeed, there was a great gulf fixed between science and practice. Chemistry, physiology and even pathology were left behind at the door of the hospital ward—were indeed by some carefully shut out. With some few exceptions, and these distrusted, there was no connecting link between chemistry or physiology and therapeutics. The symptoms of disease and the influence of remedies were facts of observation pure and simple, to which it was unsafe to apply reasoning or conclusions drawn from science of any kind. But this is no longer the case When pathologists were in the habit of looking only at the effects of disease—at lungs riddled with cavities at the liver and kidneys shrunken and hardened by fibroid change, at the brain torn by a hæmorrhage—they might scoff at the efforts of the therapeutist to deal with such conditions, but they have all had a starting-point, and the patients who have ultimately died have lived through all the stages which have culminated in the ruin displayed on the post-mortem table, while this same port-mortem table has displayed scores of instances in which similar disease has been arrested at one or other of these stages. Processes are now the chief object of study and research, and in proportion as these are understood power will be gained of intervening and counteracting. As we learn how to set in motion morbid changes we learn how they may be arrested. It is in functional derangements that organic disease begins, in dynamic influences that structural changes have their origin. Perturbation in the activity of cells is brought about by deviations from the normal composition of the blood. Now we can at will introduce into the blood substances which can influence the activity in one direction or another of every cell in the body; we can intensify or suspend the influence and control of the nervous system over organic operations, and it is our own fault if we cannot employ these tremendous powers for the advantage of our patients. It is true that at present our comprehension of the ultimate mode of action of remedies is very imperfect, and that we have still to be guided by the flickering light of experience rather than by the broad daylight of science, and it is true that experience is uncertain and at times misleading.

"An enormous step towards the comprehension of the mode of action of remedies has been made in the discovery of the antipyretic class of substances. In these, as in chloral, the chemical constitution of a drug is a clue to its effects, so that from the chemical constitution the effects can be predicted, and our scientific chemists know in what direction to push their endeavours in order to obtain a safer or more powerful substance. When this is fully worked out, and we know not only the factor in the drug, by variations of which the results are influenced, but the exact way in which the chemistry of the system is modified and the heat-producing reactions between blood and tissue are restrained, we shall have obtained knowledge going far beyond what we now possess. In the meantime this tremendous power of lowering the temperature and of relieving certain kinds of pain placed in our hands by these substances is, I fear, thoughtlessly and recklessly employed. We have so long looked upon a high temperature as denoting the intensity of acute disease, and as an indication of the danger attending it, that the lowering of the temperature has almost come to be considered equivalent to the cure of the disease, whereas not infrequently the patient is knocked down as well as the pyrexia, and in any case we ought to bear in mind that we are dealing with an effect and not with the cause, and that, unless the effect is itself a danger, we may be doing more harm than good. We may actually be interfering with a defensive reaction. So common is the abuse of anti-pyretics, that, from time to time in cases admitted into hospital, the drug has to be diagnosed as well as the disease.

"In what way is the study of medicine to be undertaken? No general recommendation could be made which would apply to all; one intellect is analytical, another constructive; one is characterised by receptivity and the faculty of storing up impressions and facts, another by lucidity in perceiving the relations which underlie phenomena; one man ponders slowly, another is instant in action. Memory, the very basis of intellectual operations, varies not only in degree but in kind; in one the memory is visual and a man retains only what he sees, while he thinks in pictures, in another it is auditory and he learns by lectures and thinks in verbal associations. You will have to find out for yourselves what method of working suits you best. While I do not interfere with the function of your teachers by recommendations as to the order and method of your studies, I may speak of the spirit in which they should be pursued and of the object you should keep before you. Professor Huxley—let me give him the title recently conferred upon him, but long held by him in our esteem, the Right Honourable Professor Huxley—in one of his lay sermons on education makes this the burden of his exhortation: 'Learn what is true, in order that you may do what is right.' Now, if this applies to the self-training of a man for the ordinary duties of life, it applies with special force to preparation for the medical profession. The sentence might have been devised as a motto for medical students, 'Learn that which is true, in order that you may do that which is right,' and I hope some of you will adopt it and live up to it."

SHEFFIELD MEDICAL SCHOOL.

INTRODUCTORY ADDRESS BY DR. DUNCAN BURGESS.

DR. BURGESS, in speaking of preliminary qualifications, referred to the ideal pupil of the old Sanskrit writers. According to the Hippocratic law "to acquire a competent knowledge of medicine, first of all a natural talent is required." The time of Hippocrates was the age of Pericles. Then no guarantee of general education or culture was required in Athens at all events; but when Galen practised in Rome in the second century of the Christian era a preliminary examination was wanted badly. For cooks and cobblers were made doctors in six months. In ancient times care was taken to exclude pupils in bad health or with obvious defects. A high standard of bodily vigour would have deprived the profession in this country of some of its greatest ornaments. The first definite course of preliminary study was that of the school of Salerno in the thirteenth century. No one was permitted to study medicine then until he had studied logic for three years. The lecturer said: "A sound general education is the only introduction to the medical curriculum demanded by our General Council. A boy, therefore, who is intended for the profession should not be made the victim of peculiar theories of education. He should be sent to a good school where he will get the mental and bodily training best suited for him, and therefore for any calling or profession he may adopt. If, when he has reached years of discretion, he cannot give his whole heart to medicine and make it the chief end of his life, he should on no account become a medical student." In speaking of the new curriculum the recognition of physics was considered a great improvement. The thorough and precise work and the accurate reasoning which characterise the exact sciences should give the medical student an invaluable training. The audience were reminded that Thomas Young, whose name occupies the most distinguished place in the history of physical optics, was a London physician; and that Helmholtz, who stands beside Lord Kelvin pre-eminent among living physicists, is a doctor of medicine. The provision in the new regulations for partially resuscitating the old system of pupilage was considered a mistake in its present form. A student would become the pupil of a registered medical practitioner to get little practical tips and useful "wrinkles" and to be made a man of the world. During the time thus occupied a formidable examination in medicine, midwifery and surgery would be hanging over his head. The degree or other title which qualifies for the Medical Register might be deferred for six months or even a year after the final examination. This interval might be profitably spent with a suitable practitioner. Probably the most valuable way of occupying it would be by residing in a general hospital as assistant house surgeon. But it might be very advantageously employed in London, at the Rotundo Hospital, Dublin, or on the Continent. The standard of the qualifying examinations has been raised by the control exercised by the General Medical Council over the multifarious licensing bodies. A State examination such as exists in the German Empire would be far simpler and much more satisfactory than the condition of things here. There should be no royal or easy road to the Medical Register. In each of the three kingdoms the same State examinations should be passed. After alluding to the first institution of medical schools in ancient Egypt and to the magnificent museum of Alexandria and to the work done by the Arabs, the lecturer then went on to say: "In the universities of the Middle Ages, wherever a medical faculty was encouraged and helped famous teachers attracted pupils from distant countries. Unfortunately medicine was not properly recognised by the English universities, and the trade marks of the corporations, formed to remedy this neglect, have been too plainly stamped on our profession. The benefactors of the famous Italian schools were animated by a very catholic spirit. The magnificent academy at Bologna was dedicated to the whole world. We are proud of Harvey, but his famous discovery was clearly the outcome of the opportunities he enjoyed during the five years he passed at Padua. For the great anatomist, Vesalius, who described the valves, the changes of form and the movements of the heart, was one of the celebrated line of Paduan professors. His pupil and successor established the pulmonary circulation as an inductive truth. And it was at Padua that Harvey had the valves of the veins demonstrated to him by his master Fabricius, who had then only recently made this important observation. The University of Paris, on which the Universities of Scotland have been modelled, may be cited to show what France has done in the past for medical education. At the present time the Republic spares no expense on its medical schools. According to Puschmann, the salaries of the medical faculty in Paris alone amount to 700,000 francs a year. Hospitals, class-rooms and laboratories are all furnished on the same liberal scale. Enumerate the universities of the German empire, count the professors if you can, inspect the institutes and libraries with their crowds of paid attendants and costly contents, and you will be simply amazed at the liberality of the various Governments. The Emperor of Austria is equally generous. In Vienna the new University buildings vie in magnificence and architectural effect with the opera, the theatre, the town hall, the Parliament house and the Imperial museums in that city of splendid palaces. To contrast with all this the the meanness of the richest nation on earth, I must appeal to Ruskin. What he said years ago is still true. We are still glad enough to make our profit out of science. We snap up anything in the way of a scientific bone that has meat on it eagerly enough, but if the scientific man comes for a bone or crust to us that is another story. Ruskin's famous illustration of the gentleman who professes to be fond of science, and who spends £2000 a year on his park but refuses to give 7*d.* for a unique collection of fossils is too flattering an illustration of what we publicly do for medicine. Registration fees are imposed on medical men at the outset of their career to pay the expenses of the Crown representatives on the Medical Council and to keep a Medical Register for the convenience and protection of the public. Moreover, zealous and able workers who are eager to promote researches at their own expense are forbidden by law to work on the only lines likely to yield useful results." The subjects of the Sheffield Medical School and the new public hospital occupied most of the latter part of the address. The lecturer, after quoting from Dr. Latham's "Clinical Medicine," concluded by saying: "If you follow Dr. Latham's advice you will do more than command success, you will deserve it. Success with honour is worth striving for. May it be yours ere your courage is daunted by hope deferred that maketh the heart sick. Remember the death-bed message of Dr. Wilson Fox to his students, 'Tell them the surest road to success is to have a high standard of right and honour and to adhere strictly to it.'"

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

INTRODUCTORY ADDRESS BY DR. L. HEPENSTAL ORMSBY.

THE lecturer, after a few introductory remarks, took for his subjects (1) A Few of the Grievances of the Medical Profession, and (2) The Five Years' Preliminary Study for a Medical Career. The second section of the address was, however, dealt with first. Having enumerated the recommendations of the General Medical Council on professional education and examinations, Dr. Ormsby proceeded to state the reasons which induced the Medical Council to institute a fifth year of study. "First, owing to the many subjects which have to be studied nowadays compared with five-and-twenty years ago, it was considered there was not time given to allow the student to master sufficiently every subject in the curriculum. Secondly, the facilities of entering the profession and the short time spent in its study led to the overcrowding of qualified men far beyond the necessary requirements. It has been said that it requires a population of at least 1800 to support each physician, giving him a fair and ample income. There are in some countries nearly twice as many physicians qualified as there is room for. In America, there is one physician for every 600 inhabitants, to say nothing about the numberless varieties of chemists and druggists who flood the country and engage more or less in practice. In England there is one physician for every 1500 persons, in France one for every 1814, in Austria one for every 2500, in Germany one for every 3000, in Italy one for every 3500. Much can be said, however, on the other side regarding the medical practical education of the last century and early in the present one. Many of our physicians and surgeons in this country who were qualified forty or fifty years ago aver that the men are not better physicians nowadays (with the numberless subjects which are crowded on their already overtaxed brains) than the qualified men of their own day. A hundred years ago there were great men in our profession with very limited advantages and opportunities. Consider for a moment what giants they would

have been had they lived now—which proves that a physician or surgeon must be born with the ability and natural aptitude for his profession and not made by a system of brain-stuffing and other artificial processes. The clever, intelligent student will be able to absorb the required information in two or three years which will take the dull or indolent one five years or more to acquire. Again, the education will be far more expensive to the parent, as it will probably entail the keeping of the student in a city or medical centre of learning for another year, with the accompanying weekly expenses of such a residence. This of course is of no consequence to the public, but it will no doubt press heavily on many impecunious parents. The five years' period of study will only apply to those students who have commenced their studies after Jan. 1st, 1892."

The lecturer then proceeded to discuss various matters falling under the second section of his address. The first grievance brought under notice was the uncertainty of superannuation in the case of Irish dispensary medical officers. "What inducement," said the speaker, "is there for highly qualified medical men to enter the service when they know that after forty or fifty years of hard and incessant work they must depend on the whims and tempers of a set of guardians to grant them a small pittance by way of superannuation to keep them in some comfort for the remaining years of their life? The present Superannuation Act has one word (*may*) which in any future legislation requires to be changed into *must* or *shall*. When that is done the guardians will have no choice in the matter, as it will then be obligatory on them to grant to all worn-out officers in the Poor-law service their just and well-earned retiring allowance. Who has not heard of the glaring case of Dr. Walsh of Ballyshannon, aged eighty-five, who, from increasing infirmities, the result of age, had to resign his dispensary and throw himself on the mercy of the guardians, who, up to the present, have not granted him one penny retiring allowance? Is this right or human in a civilised country? Yet year after year this gross and scandalous system is allowed to continue and old and worn-out dispensary medical officers are constantly to be seen at all hours of the day and night, in sleet and snow, pursuing their beneficent work in miserable cabins on sides of mountains at a time when many of their masters—the guardians—are enveloped in comfort, luxury and sleep. After a life spent in such circumstances the doctor need not look with confidence to a pension. Some boards of guardians have given the smallest retiring allowance they could, others have persistently refused to give any at all. There is no law to compel them. The doctor must resign before his application can be considered, and therefore a number of them hold on until they die in harness."

The next grievance Dr. Ormsby brought before his hearers was the exclusion of Irish and Scotch diplomates from English appointments. "What!" said the lecturer, "am I to be told that, with what Englishmen boast of—*fair play*—they tolerate a system of exclusion of Irish and Scotch diplomates from their appointments, although the same system of examination is held in the three countries, arranged and sanctioned by the General Medical Council, which is the body appointed by the Crown; the licensing bodies and the rank and file of the profession in the three countries to arrange uniform curricula and uniform final test examinations? The question is a very important one and has received the serious attention of many influential bodies. The Irish Medical Association, the British Medical Association, the Irish Medical Schools and Graduates' Association are all in line on the subject, and by their combined strenuous efforts in the direction of justice and British fair play have induced the governors of the Bristol General Hospital and the East Sussex Hospital, Hastings, to expunge from their by-laws this unfair and un-British-like disability. ..... Very recently—within the last three months—a friend of mine, a very able and accomplished surgeon, holding the Fellowship of the Irish Royal College of Surgeons, became a candidate for the assistant surgeoncy of a London hospital. Each candidate on the day of election was called in and interrogated by the governor of the institution, and the following dialogue took place between the governor and my friend:—'Governor (in the chair): Mr. ——, you are a candidate for the post of assistant surgeon of this hospital?—Candidate: Yes.—Governor: You have read all the regulations necessary for candidates to comply with?—Candidate: Yes.—Governor: What qualifications do you hold?—Candidate: I hold the Fellowship of the Royal College of Surgeons in Ireland—— Governor: Well, sir, we regret very much, but holding such a qualification you are ineligible as a candidate for the assistant surgeoncy of this hospital, and we must strike your name off the list of candidates.' I presume if I were a candidate to-morrow for the surgeoncy of a London hospital I would meet with the same rebuff, because I hold by a hard and stringent examination the Fellowship of the Dublin College of Surgeons." Another grievance spoken of by the lecturer was one in connexion with the Army Medical Service. For though, he said, the hardships formerly complained of by that service had to a large extent been removed, there still remained one requiring attention—namely, "the meagre and miserable name by which the Army Medical Service is known—namely, Medical Staff—a meaningless term. It might just as well be civil as military. I know when the Army Medical Service was made a departmental system in 1873 every army surgeon was sure it would be raised to a 'Royal Corps.' We have Royal Engineers, a corps more like the Army Medical Service than any other in work and division of labour. Then there is the Royal Artillery, Royal Marines, and many other regiments termed Royal, but the moment it is proposed to confer it on doctors prejudice and class feeling intervene between the Queen's wishes and her faithful servants in the Medical Service. In 1883 Lord Morley's Committee recommended that the Medical Service should be made a Royal corps, but it was again refused. The doctor class apparently has to work hard, but need never think of being honoured or rewarded. I do not like to prophesy, but I am inclined to think that before long you will see the service termed, as it in all justice ought to be, Royal Medical Staff. And by making the service Royal its *esprit de corps* would be increased and better officers would join it, and so its efficiency and social position would be improved. On the subject of foreign service a great injustice is practised on the army doctor. Till very recently he was compelled to remain only five years on foreign service. Now, however, an additional year has been put upon him, serving as he may have to do in the worst of climates or in a fever- or cholera-stricken district, whereas the Royal Engineers used to serve seven years abroad, but now this has been reduced to five. Where is the justice of this interchange?

The exclusion of members of the profession from the peerage and the appointment of a Cabinet Minister of Health and Sanitary Science then came under notice in connexion with the elevation to the peerage of Sir Lyon Playfair, and the appointment of Sir Walter Foster by Mr. Gladstone as Parliamentary Secretary of the Local Government Board, this being the first occasion upon which any member of the medical profession has been appointed by the Sovereign as a member of the Government. "In the constitution of our governmental system," said Dr. Ormsby, "there should be (and it is imperatively called for) the Minister of Health and Sanitary Science, who should occupy a seat in the Cabinet, to be only filled by a physician or surgeon of eminence and ability. ..... I also fail to see why the profession of medicine should not hold at least as high a place in the public estimation, and therefore in that of the State, as any other profession. Why is England so sadly behind other countries in this respect? Look, for instance, how the profession is treated in Germany. There, when the medical man has earned by his labours for the public good the recognition of his monarch, he receives a patent of nobility and a high place in the social system, because he is a man of science and extended knowledge. Is the arbitrary word 'precedent' always to exclude men who happen to embrace medicine as a profession, who possess in many instances far bluer blood and a far more ancient and honourable pedigree than many of the members of modern society now called aristocracy? Statesmen in exalted positions are frequently in the habit of making use of statements which they either do not mean or seem not to have the moral courage to carry into effect. For it seems to me that nothing but the blindest prejudice—a prejudice unworthy of enlightened and honest men—can have so long stayed the hand of the Sovereign and prevented the elevation of representative men of our order to seats in the Upper House, which Lord Salisbury once told the country was chiefly valuable because it represented success in all lines of public usefulness, from commerce to statesmanship. It is a great honour to be Prime Minister, but it is even a greater distinction to be Prime Minister in one's eighty-third year, probably the first example of the kind in history. If medical science has had anything to do with Mr. Gladstone's health, and consequently of his position to-day—and who can doubt that it has had much, owing to the care taken of it by Sir Andrew Clark—what higher duty can devolve upon him as Prime Minister than to mark his assumption of office be

advising the Queen to at last do justice to medicine by creating at least two medical peers, Sir William Jenner and Sir James Paget, a physician and a surgeon respectively of world-wide reputation, who have personally well deserved the honour, and the medical profession at large would be ennobled by their elevation."

In the same strain the lecturer referred to the almost entire exclusion of medical men from seats on the Privy Council in England and Ireland. He remarked that England is in advance of Ireland in some degree, for within a few months one of our order, a Fellow of the College of Surgeons of England, has been advanced to the position of a Privy Councillor in the person of Thomas Henry Huxley, F.R.S. Now that England had recognised the claims of the medical profession in this respect, he trusted that Ireland would not be behindhand in recognising the claims to a similar honour of such leaders in Dublin as Sir George Porter, Bart., and Sir John Banks, K.C.B. "I fear I have wearied you with topics which at present do not interest you as much as they will later on. Those among my junior hearers I may divide into three classes: (1) The first year's students or beginners; (2) those who are in the middle of their course; (3) those just qualified. Now, I would wish to address a few words to each class. As regards the proper and most advisable mode for a medical student to begin the study of his profession, I am convinced that the system of apprenticeship to a hospital surgeon offers the most advantages. It may be the young fellow just out of school is steady, perhaps does not require to be strictly looked after, yet he must always want advice as to how to prosecute his different studies, and in his master he has a friend, counsellor and guide as a matter of right. On the other hand, if the student is inclined to be giddy, the consciousness of a watchful eye over him in the city may be the means of regulating his conduct and frequently act as a salutary deterrent from evil paths. It is cheaper as regards cost, for in the long run the master, out of the nominal fee he receives, undertakes the entire management of the pupil's studies from beginning to end and pays for all lectures, private teaching, grinding, as well as the three separate diplomas necessary to practise. In this way the pupil is saved a lot of inconvenience and the parent has a responsible person to apply to when he wishes to know how the pupil is proceeding with his studies. As regards the course I would recommend the first year's man to adopt in commencing his studies, I would say—be extremely punctual in attendance at the hospital, try to be in time, even though the morning is wet and cold; do not let little discomforts be pleaded as an excuse for your non-attendance; if your teachers are able to be present for your convenience at an early hour, surely you ought to be there to meet them; and as beginners, I warn you not to be giving up your whole time in looking at abstruse and uncommon cases, which you will not comprehend, instead of learning to dress a cut or adjust a bandage. You must educate your minds by degrees; first grasp the elementary principles of your profession, and by this means you will lay the foundation of a sound practical knowledge of the noble science you are now entering upon."

The lecturer exhorted his hearers to endeavour to realise the greatness of their trust and the responsibility and glory of their almost Divine mission. "Remember at all times that every phase of your conduct, every word you utter, every look, every nod of your head, quiver of your lips, glance of your eye and shrug of your shoulders will be observed and considered, and may inspire hope or despair in an anxious heart. Therefore, strive to make your manner and your methods as faultless as possible. Keep your lamps trimmed and your oil ready, and observe punctuality and system in attending all who place themselves under your care, and strive to do the greatest absolute good for each and every one of your patients, that you may deserve to be called 'a model physician.'"

THE CONDITION OF THE THAMES.—The Main Drainage Committee of the London County Council has reported that the River Thames has been in a most satisfactory condition during the past summer. At no time has it been possible to detect the slightest discolouration of the water by sewage matters or black mud, and the foreshores at all points have been clean. The aeration of the water has shown a marked increase, the quantity of oxygen dissolved in the water being on one occasion, Aug. 31st, the maximum quantity possible. This satisfactory result is attributed to the operations at the Council's sewage precipitation works.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se compare.—MORGAGNI *De Sed. et Caus. Morb.*, **lib. iv. Proœmium.**

MANCHESTER ROYAL INFIRMARY.

A CASE ILLUSTRATING THE TREATMENT OF FÆCAL FISTULÆ AFTER TYPHLITIS.

(Under the care of Mr. F. A. SOUTHAM.)

THE presence of a fæcal fistula after the evacuation of a perityphlitic abscess is a complication which fortunately is not of very common occurrence; for, as Mr. Treves has pointed out, if fæcal matter is mixed with the discharge, it usually indicates a direct opening into the cæcum.[1] It is now a well-established fact that in most abscesses of this nature the vermiform appendix—and not the cæcum—is the part primarily affected, an appendicitis being excited usually as the result of the irritation caused by the presence of a fæcal concretion or foreign body in the process. If, as frequently happens, the inflammation runs on to perforation or sloughing of the appendix, and suppuration takes place around it, the pus, though it often has an offensive odour, is not usually mixed with fæcal matter, for the communication with the bowel becomes obliterated, probably at an early stage in the course of the disease.

In the case recorded below, where a fæcal fistula followed the evacuation of a perityphlitic abscess, the appendix was found to be in a healthy condition, the communication with the bowel being situated just at the point of junction of the ileum with the cæcum. Fæcal fistulæ originating in this way generally close of themselves if the patient's diet and the state of the bowels are carefully regulated, no special treatment being required beyond attention to cleanliness and the ordinary means for preventing any retention of the discharge. In a case of this kind recently under the care of Mr. Southam the fæcal discharge, after persisting for about two months, gradually ceased and the fistula then healed. Occasionally, however, in spite of the most careful treatment, healing does not take place and the fistula remains permanently open—a continual source of annoyance to the patient, whose health is very liable sooner or later to become affected by the constant discharge. This result was illustrated in another case of typhlitic abscess which also came under Mr. Southam's observation, the fistula never closing and the patient being troubled with a fæcal discharge until his death, which occurred some seven or eight years after the abscess was opened. The surgical treatment of these cases, when spontaneous closure does not occur, is usually unsatisfactory. Mr. Treves says: "Cæcal fistulæ are very difficult to deal with by operation, no matter at what stage the attempt at closure is undertaken." The operations usually performed in a case of fæcal fistula, in whatever way it originates, are either paring the edges and suture of the opening in the bowel or resection of the intestine. The former method often fails and is as a rule not easy of accomplishment, for the margins of the perforation after a time become thickened and indurated, the bowel itself being surrounded and bound down by adhesions, and often lying at some distance from the surface. Resection of the intestine is a proceeding which is hardly practicable when the cæcum is the part involved; moreover, it is a tedious and a difficult operation, and one which is not only frequently unsuccessful, but is also attended by a high rate of mortality. The operation of "lateral anastomosis" recently introduced by Senn is a method of treatment which appears to be peculiarly applicable to cases of this nature, for by establishing a fistulous communication between coils of intestine above and below the seat of perforation the passage of the fæces can be diverted; and the fistula, being no longer irritated by the escape of fæcal matter, is therefore placed in a more favourable condition for healing. An advantage of this method is that we are enabled to operate upon the bowel at some distance from the seat of disease, where it is free from

[1] The Surgical Treatment of Typhlitis, p. 45.

adhesions and where its walls are in a perfectly healthy condition. It was for these reasons that the operation of lateral anastomosis (in this instance ileo-colostomy) was performed in the following case, where a fæcal fistula had been present for some months, as it showed no signs of closing, and the constant discharge was beginning to undermine the patient's health.

A. T——, a male aged nineteen years, was admitted into the Manchester Royal Infirmary on April 9th, 1892, suffering from a fæcal fistula, the orifice of which was situated in the right groin about an inch above the centre of Poupart's ligament. About six months previously an abscess had formed in this situation, which from the history appeared to have originated around either the cæcum or vermiform process, for its formation had been preceded by the ordinary symptoms of perityphlitis. The patient was extremely emaciated, having rapidly lost flesh during the last few months. The bowels were very constipated, not being moved except by enemata. A few days after admission the opening of the fistula was slightly enlarged, and its tract, which extended backwards for several inches and was very tortuous, was scraped with a Volkmann's spoon. This proceeding was not, however, followed by any improvement, the discharge of pus and fæcal matter still being so copious that it soaked through the dressings, which had to be changed several times daily. For the reasons given above it was therefore resolved to perform the operation of ileo-colostomy. In order that the intestine might be as empty as possible the patient was fed with nutrient enemata for forty-eight hours previously to operation, nothing being given by the mouth except a small quantity of milk.

On May 19th the operation was performed, Mr. J. W. Smith, resident surgical officer, assisting Mr. Southam. An incision about five inches long, its centre corresponding with the orifice of the fistula, was made above and parallel with Poupart's ligament. The abdominal muscles and peritoneum having been divided to the same extent, the fistula was followed through a quantity of soft granulation tissue to its communication with the bowel—an opening the size of a shilling, with indurated irregular margins, situated exactly at the junction of the ileum with the cæcum on its anterior aspect. The cæcum and termination of the ileum were firmly bound down with adhesions, and there were a few adhesions round the vermiform process, which otherwise presented a perfectly healthy appearance. A loop of ileum a few inches above the point of perforation, and where the bowel was free from adhesions, was emptied of its contents and gently drawn out of the wound; a loop of the transverse colon, which lay in close proximity to the cæcum, was treated in the same way. Openings were then made in the adjacent loops of ileum and transverse colon and two of Senn's decalcified bone-plates were introduced and secured in the usual manner, care being taken to prevent any escape of fæcal matter into the abdominal cavity. No attempt was made to close the perforation in the bowel. The coils of intestine were then replaced and the wound in the abdominal walls was closed with sutures, a drainage-tube being inserted at its centre.

As regards the after-course of the case, there was no diminution in the amount of fæcal discharge from the wound during the first week after the operation. On the tenth day the bowels were moved for the first time, and after this date the discharge rapidly diminished. After the fourteenth day the discharge was very slight, containing only a trace of fæcal matter, and the wound healed very rapidly. At the end of the third week the patient was up in the ward, the wound being quite superficial, and at the end of a month it was completely healed. The patient left the hospital six weeks after the operation, the seat of the fistula being marked by a firm cicatrix; the bowels were moved regularly once a day and he was rapidly gaining flesh. When last seen, about two months subsequently, he was in the enjoyment of excellent health.

BRISTOL GENERAL HOSPITAL.

TWO CASES OF ABDOMINAL SECTION.

(Under the care of Mr. NELSON C. DOBSON.)

THE following case is one of some rarity, and the record of it is important. The general characters of the disease resemble in many respects those of sarcomata of the ovaries, but the clinical cause of the disease after operation is very different. Dr. Lomer has described[1] an almost exactly similar case, in which the peritoneum was also extensively infected, and his patient survived four years and a half without any relapse. Cases of this disease have also been described by Thornton, Leopold, Cohen, and Freund. In this patient the larger growths, as well as the smaller, were of a papillomatous nature, and resembled the growths found in cysts arising in the hilum of the ovary or broad ligament in connexion with remains of the Wolffian body. They were whitish-yellow in colour, friable and not very vascular. The cysts in connexion with them were each of about the size of a walnut and contained a yellow mucoid fluid and abundant intracystic papillary growths exactly resembling the large extracystic masses with which they were associated. In all probability these were also originally contained within a cyst which had ruptured posteriorly, possibly at the time when the abdomen began to diminish in size in July. The very vascular tissue cut through in cutting into the abdominal cavity was probably the adherent anterior wall of the cyst, the intestines being visible through the ruptured posterior wall. Microscopic examination showed the typical structure of papilloma, covered with columnar epithelium. Papillomatous growths on the ovaries are very rare and are not associated usually with cysts, as they were in this case. Moreover, the ovaries were not recognised in the operation. We are indebted for the notes of these cases to Mr. Charles A. Morton, registrar.

CASE 1. *Ruptured papillomatous ovarian cyst, with dissemination of papillomatous growths over the peritoneum. laparotomy; recovery.*—A. B——, aged nineteen, began to suffer from pain in the lower abdomen in January, 1891, and the abdomen began to swell. The pain and swelling prevented her getting about, and she was in bed all the early spring and summer. Towards the end of July the swelling gradually but considerably diminished, so that she measured seven inches less than she had done some time previously. She was then able to be up again for about three weeks, but at the end of that time the swelling had again increased, and she was obliged to return to bed. On admission on Sept. 16th there were signs of free fluid in the abdomen, which measured forty-three inches and a half around at the umbilicus. Eighteen pints of watery fluid, deeply tinged with blood, were drawn off. Under the microscope numerous red corpuscles were seen in the fluid. Nothing definite could be felt in the abdomen.

On Sept. 26th Mr. Dobson, with antiseptic precautions, made a small incision in the linea alba about midway between the umbilicus and pubes. The tissue divided just before the peritoneal cavity was opened contained large veins, and after it was opened a large quantity of blood-stained fluid escaped, but no intestine presented at the wound. On passing the fingers down into the pelvis cauliflower-liker growths could be felt. The wound was then enlarged so as to bring these masses into view and facilitate their removal. One the size of an orange was removed from the right side and attached to it was a cyst the size of a walnut. It had a distinct pedicle which seemed to come from the right side of the uterus. On the left side was a similar cauliflower-like growth, but slightly larger, and attached to it were several small cysts. It seemed to be attached to the left side of the uterus, and on its pedicle were some smaller papillomatous growths. It was very difficult to tie the pedicle so as to include all these growths. Both pedicles were transfixed and tied with strong carbolised silk. Several small papillomatous growths were attached to the peritoneum in the pelvis. These were swept off with the finger without ligature. The intestines were tied down by adhesions. The abdominal cavity was washed out with boracic solution and a glass drainage-tube left in.

Two days after the operation the drainage-tube was removed, and on Oct. 3rd the wound was healed and the stitches removed. There had only been occasional pain in the abdomen after the operation, and the temperature was only once raised to 100°. In the afternoon of the 4th marked abdominal pain set in, and the temperature went up to 102° by the evening. On the 5th and 6th the pain continued and the abdomen began to swell, but there was no vomiting, and the bowels were opened. The temperature kept up at 102° at night and was not much lower in the morning. On the evening of the 6th Mr. Dobson again explored the abdomen through the old wound and found the intestines very sticky and matted together. There was not much fluid, but a drainage-tube was left in. The abdominal pain continued, and the temperature kept up until the 15th, when the

[1] Sajous, vol. ii. 1891. G. 45.

pain was less marked and the drainage-tube was removed. By the 19th the patient was much better. Her condition rapidly improved after this, and she was discharged without any recurrence of the ascites at the end of November. The small sinus (where the tube had been) closed soon after, and now (Sept. 1892) she remains in good health.

Looking at the fact that the papillomatous growths were already beginning to infect the peritoneum at the time of the operation, it is interesting that there has been no evidence of the continuance of the disease.

The subject of suppuration in the abdominal cavity is always an interesting one, and it is frequently extremely difficult, if not impossible, to give the cause of such disease. In the following case the symptoms preceding the appearance of any swelling and the result of the pelvic examination seem to point to pelvic peritonitis as its cause, but the swelling reached much higher than those of this nature usually do. On the other hand, if there had been suppuration in an ovarian cyst there would have been a swelling preceding the symptoms. The facts that there were swelling and drawing up of the left lower limb and the pelvic thickening and possibility of feeling the cystic swelling from the rectum are in favour of the pelvic origin of the peritonitis. But whatever its origin, the woman's condition on admission was a very serious one and the beneficial effects of antiseptic drainage were rapid and marked.

CASE 2. *Large encysted collection of pus in the abdomen: drainage; recovery.*—M. J——, aged thirty-four, was admitted into the Bristol General Hospital on April 11th, 1892, with the following history. She was the mother of eight children; the last was five months old. The labour had been quite a natural one. She did not suckle the child after the first ten days, and she menstruated naturally a month after her confinement. She was getting about quite well in health until ten weeks before admission—i.e., for two months and a half after her confinement—when severe pain in the abdomen came on, with vomiting and diarrhœa. The diarrhœa only lasted a few hours, but the vomiting continued for three days, and the pain (which was all over the stomach) lasted for ten days. The abdomen began to swell a fortnight after the pain ceased, and then the left lower limb became much swollen and was drawn up, but this condition of the limb passed off in a few weeks. The abdomen, however, steadily enlarged, and there was pain over the right side when she sat up. There had been no dysuria or difficulty with the bowels after the attack of abdominal pain, though dysuria was present at that time. After the first menstrual time, a month after her confinement, she did not menstruate again until two days after the onset of the abdominal pain and vomiting—i.e., a fortnight later, It was then like a natural period, but perhaps rather scanty, and lasted a week. She was an anæmic, emaciated woman. She had always been anæmic, but had lost flesh since the abdominal attack. The right side of the abdomen was greatly distended by a round swelling, which, although it just crossed the middle line, was nearly wholly confined to the right side. It was distinctly round and was very tense—too tense to get fluctuation by percussion, but fluctuation could be felt by bi-manual pressure. It was dull, and not markedly tender. It reached the costal margin above at its lower part, but did not pass underneath it; below it came to the anterior superior spine. To the outer side its edge could not be defined. It crossed the middle line for about two inches, and one could just get between it and the symphysis pubis. There was very distinct resonance in the flank on the same side. No impulse was communicated to it from the renal region. It was very fixed, so that rolling the patient over on the other side did not alter its position. There were irregular rises of temperature after admission, but not to any height.

Dr. Aust Lawrence examined the woman and found the pelvic roof much thickened by inflammatory exudation which fixed the uterus. Per rectum a swelling could be felt extending into the left side of the pelvis. The urine was clear and free from albumen.

April 14th.—Mr. Dobson made an incision in the linea alba just below the umbilicus, with antiseptic precautions, and dissected through the layers of tissue until the encysted collection of fluid was opened; the peritoneum was so adherent it could not be recognised. Several pints of pus were evacuated and a large rubber drainage-tube was put in. The patient progressed very well after the operation. There was very free discharge of pus for some days, but the drainage-tube was removed by the 22nd, as the discharge was then diminishing. She gained flesh and her general health rapidly improved, and she was discharged on May 15th with only a small sinus. She writes now (Sept. 1892): "The wound was quite healed within a week from the time I left the hospital, and I have been very well in myself since."

Reviews and Notices of Books.

Ptomaines, Leucomaines and Bacterial Proteids; or, the Chemical Factors in the Causation of Disease. By VICTOR C. VAUGHAN, Ph.D., M.D., and FREDERICK G. NOVY, Sc.D., M.D. Second Edition, revised and enlarged. Philadelphia: Lea Brothers and Co. 1891.

No more convincing proof of the important part that ptomaines, leucomaines and bacterial proteids play in our latter-day pathology can be given than a comparison of the second edition of Vaughan and Novy's work on this subject with their first issue. In it the old matter has been corrected up to date, whilst a very large amount of new matter has been added. This is especially noticeable in the chapters on the relation of bacterial poisons to infectious diseases, on the germicidal proteids of the blood, and on the nature of immunity-giving substances. The chapters on the chemistry of ptomaines and leucomaines are very much extended, whilst considerable interest will be aroused by the chapter on autogenous diseases. The tables for laboratory use have been considerably enlarged and increased in number. Although it is impossible to agree with the authors on some points brought forward and discussed, it cannot but be felt, on careful perusal of the work, that it is the result not only of a most careful and discriminating analysis, but of very great labour and anxious thought; and we must again take the opportunity of congratulating the authors on having produced such an interesting work and readers on having such a book at their command.

The Geographical Distribution of Disease in Great Britain. Part I.: Cumberland, Westmoreland and the Lake District; their Climatology, Geology and Disease Distribution. By ALFRED HAVILAND, M.R.C.S. London: Swan Sonnenschein and Co. 1892.

THIS second edition of Mr. Haviland's treatise is virtually a new work. It is the first instalment of what is intended to be a complete exposition of the geographical pathology of the British islands, and Part I. is t be followed by Part II., dealing with the Basin of the Thames. The writer selects cancer, heart disease and phthisis as illustrations of disease distribution in the British Islands. As regards the first-mentioned disease, the author's conclusions are that "the prevalence of cancer in the Cumbrian areas, as throughout Great Britain, is associated with lowness of area, consisting of more or less retentive soils, overlying clayey rocks and subject to seasonal river floods, that bring down from cultivated and uncultivated land and inhabited localities much refuse, made up of vegetable and animal matter, which ultimately is subject to decomposition, which soils are formed that microphytes and other minute organisms rejoice in as conducive to their culture and propagation." As regards phthisis, he finds that the exposed and windy portions of the area under consideration show the largest percentage of mortality from the disease, and goes on to argue that the probable explanation is "that the irritating qualities of the strong atmospheric currents, more or less ozoniferous, produce pulmonary catarrh, and thus, in the untainted but susceptible, prepare the lung for the bacillus, and in the tainted expedite the process of destruction." We must demur both to these alleged facts and to the conclusions founded upon them. So far from it being the case that windy maritime localities are peculiarly prone to breed phthisis, we believe there is trustworthy evidence to

prove that the very opposite statement is much nearer the truth. The wind-swept Hebrides and Faroë Islands present one of the lowest rates of mortality from phthisis to be observed anywhere. The explanation is probably to be found in the habits of the people. Mr. Haviland's idea that "forcible winds spread havoc among the consumptive" is, we think, an error. No doubt for patients with active disease to expose themselves to trying winds such as the mistral or tramontana is likely to be injurious, but wholesome sea breezes will, on the whole, do phthisical patients much more good than harm. As regards heart disease the author finds that the sheltered districts show the highest mortality. This is not *a priori* unlikely, but we do not think that the mere question of shelter or exposure is the sole, or even the chief, factor in the complicated etiology of heart disease. The relations of this disease to rheumatism, extremely important as they are, do not exhaust the question of its etiology, and even as regards rheumatism, exposure to, or shelter from, winds is certainly not the most important point.

To review fully the work before us would require more space than we can afford. It contains much statistical information and several interesting maps. We cannot say, however, that the facts are always well marshalled or that the conclusions are drawn with sufficient precision or philosophic caution.

Crime and its Causes. By WILLIAM DOUGLAS MORRISON, of H.M. Prison, Wandsworth. London: Swan Sonnenschein and Co. 1891.

THOUGH we are accustomed to regard crime as a moral plague inherent in man from the earliest recorded ages, it is certainly disheartening to learn that its amount, as indicated by the number of convictions, is steadily increasing, while it shows no real diminution in seriousness. This, at all events, is the view taken by the author of the volume before us, and it is based upon extensive inquiry and statistical data. We should therefore be the more disposed to follow with interest his careful observations upon this wide field of social pathology. As might be expected, particular attention is given to the causes apparently conducive to crime. Some of these, as climate and temperature, are natural, though not therefore uncontrollable. The rule appears to be that the hotter the climate and the more liable to variation the greater the degree of moral instability. Mr. Morrison is not one of those who regard poverty as a powerful stimulus to wrongdoing. Indolence, he says, doubtless truly, has more to do with the matter. Sex and age have some influence also, woman being prone to offend later in life, and less frequently, but in a more inveterate manner than men. As to age, the years between sixteen and forty are said to be the most lawless. A chapter on the physical and mental characters of criminals is interesting, and tends to show that no such thing exists as a criminal type of man, though evil-doing is very commonly a graft on physical degeneracy. As regards punishment, the system preferred is one which is fully punitive and deterrent, but at the same time educative. A timely word in favour of Prisoners' Aid Societies forms a fitting close to this carefully thought-out and instructive work.

Archives des Sciences Biologiques, publiées par l'Institut Impérial de Médecine Expérimentale à St. Pétersbourg. Tome I., No. 3.

MME. N. O. SIEBER-SCHOUMOFF contributes to this number of the "Archives des Sciences Biologiques" an interesting article, "Recherches sur les Streptococcus Pathogènes," in which the question of the identity or specificity of the streptococcus of erysipelas, the streptococcus pyogenes and the streptococcus of scarlet fever is dealt with. The writer comes to the conclusion that the streptococcus pyogenes and the streptococcus of erysipelas are very closely related, although their chemical products differ slightly. The streptococcus pyogenes forms with various soluble sugars—grape sugar, milk sugar &c.—a variable quantity of optically inactive lactic acid, the zinc salt of which contains three molecules of water of crystallisation. The streptococcus of erysipelas produces active light rotating lactic acid, of which, however, the zinc salt contains only two molecules of water of crystallisation; this acid polarises to the left. Otherwise both these organisms are facultative anaerobes; they decompose sugar both in bouillon and peptone solution, and they produce carbonic acid, but no marsh gas or hydrogen. In bouillon without sugar they produce volatile, fatty acids, and substances giving rise to iodoform in small quantities, but they do not decompose fatty matter or salol into their constituent parts. In ordinary meat bouillon or in bouillon containing sugar of milk they form a toxic albumose, that of the streptococcus pyogenes being the more toxic of the two. The streptococcus of scarlet fever, like the streptococcus of erysipelas, decomposes sugar and forms active lactic acid; like the others, it also gives rise to carbonic acid, but in addition, hydrogen is formed. It may be readily distinguished from the other two organisms by the fact that it brings about rapidly and readily the decomposition of salol. A fourth streptococcus is also mentioned, which, however, may be distinguished morphologically from the others; this also forms, from grape or milk sugar or from glycerine, carbonic acid and optically active lactic acid. This organism was found in cases of sporadic mammitis in cows.

Transactions of the American Climatological Association, Eighth Meeting. Philadelphia: W. B. Saunders. 1892.

THIS volume contains the presidential address of Dr. Fredk. Knight; and papers on Whooping-cough, by Dr. Musser; on Pleurisy, by Dr. Garland; on Consumption, by Dr. Thurley, Dr. Loomis, Dr. Fisk, Dr. H. F. Williams, Dr. Tynedale, Dr. Fremont Smith and Dr. Glasgow; on Influenza, by Dr. Curtin, Dr. Watson, Dr. Ingals, Dr. Munro, Dr. Mulhall, Dr. A. A. Smith, Dr. R. J. Nunn; and on various Sanatoria, by Dr. Bibber, Dr. C. C. Ransom, Dr. Darlington and Dr. H. B. Moore. The president's address deals chiefly with the desiderata of a good sanatorium as regards hotels, food-supply &c. Many of the questions in the above list are ably handled and the papers and discussions will repay perusal.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. W. H. Rawson of Mill House, Sowerby, Halifax, bequeathed £500 to the Halifax Infirmary, and £100 each to the Royal Albert Hospital and the Royal Hospital for Incurables at Putney. The executor of the late Mrs. E. Holm has forwarded a cheque for £2500 to the Royal Hospital for Children and Women, Waterloo Bridge-road. Miss Zoe Hawke of Lapford House, New Barnet, has given £200 to the Barnet Cottage Hospital. Miss Eleanor Robson of Rye Hill, Newcastle, has sent a donation of £100 to the Northumberland, Durham and Newcastle Infirmary for Diseases of the Eye, Newcastle. The late Lord Winmarleigh bequeathed £500 to the Warrington Infirmary. Mr. Richard Turton, late of Beechenhurst, Selby Park, Warwickshire, bequeathed £500 each to the General Hospital and the Queen's Hospital, Birmingham; £250 each to the Free Hospital for the Relief of Sick Children and the Royal Orthopædic and Spinal Hospital; £100 each to the Ear and Throat Hospital, the Eye Hospital and the Skin and Lock Hospital, Birmingham. A legacy of £100 has been received by the treasurer of the Hospital for Diseases of the Skin, New Bridge-street, London, under the will of the late Mr. H. Vigne of Woodford. The sum of £141 8*s.* 8*d.* has been handed to the committee of the Victoria Hospital for Children, being the result of the recent trades' friendly and temperance societies' demonstration. The late Mr. Edwin Smallwood of Redditch bequeathed £1000 each to the General Hospital and Queen's Hospital, Birmingham, and £5000 in trust for endowing a cottage hospital at Redditch, to be called the Smallwood Hospital.

THE LANCET.

LONDON: SATURDAY, OCTOBER 8, 1892.

THERE is no falling off in the quality of the introductory addresses which we publish this year, and we can imagine no better employment, or one more agreeable to the student, at a time when he has not settled down to the actual tussle with the hard subjects of the curriculum, than to read the whole of them. While his new surroundings are still rather dull and dingy compared with home, and while fellow students are new and strange, the perusal of these addresses will be an occupation that will give dignity and inspiration to the work of medical education. Occasionally the giver of the address forgets the "high calling," and condescends to suggestions or considerations which do not seem equal to the occasion; but taking the addresses as a whole they justify our advice to students to make the perusal of them the first work of the session. And it is not only students that will profit by this proceeding, but teachers and examiners also. We sometimes think that it would not be a bad change for once in a way if, *vice versâ*, the introductory lectures could be addressed to them rather than to the students.

The address of Sir GEORGE HUMPHRY to the Birmingham School, which we published last week, for example, contained some truths which, it seems to us, need to be much impressed on examiners and teachers. We refer to his description of the weary weight of ever-multiplying and more exacting examinations, and to the need for some limitation of the area of subjects which the poor student is expected to know something of, but which are illimitable in their detail. His description of the difference between the demand now made of students at examinations and that made of them when he passed the great portal of Lincoln's-inn should be taken to heart by those who pile subject upon subject in the curriculum and exact even more detail in examinations. He well and eloquently says that the cloud of prospective examinations, which in his days was no bigger than a man's hand, "has now spread over the horizon and almost threatens to deluge the scene and drown the whole joyousness of study." At another point Sir G. HUMPHRY, alluding to the need for limitation of detail in teaching and examining, says: "I feel with regard to certain subjects that they had better be left out of the programme altogether than that the student should be *overladen and wearied and his spirit broken by the multitude of facts and details* that are required to be got up." These are weighty words, which the wisest men in the profession will endorse. Indeed, Dr. COUPLAND, a physician and teacher of great experience, has the same account to give of our examinations—"those examinations which loom so fearfully in the distance." Sir G. HUMPHRY has done many good services to the profession and to education. He cannot do anything better than to press these thoughts of his on over-examining and over-cramming into the minds, not so much of students, who are the sufferers, and the grievous sufferers, from the present state of things, but into the minds of examiners and teachers, who are apt to think that students were made to be examined and even rejected once or twice, instead of realising that examiners and teachers were made to coöperate justly and proportionately in perfecting medical education, in making it reasonable, and, to use Sir G. HUMPHRY'S happy expression, "joyous." Students, no doubt, are often to blame; there is a great deal of bad studying from want of attention and love of idleness or pleasure; but there is also much need for better teaching and for a more just and less terrible system of examinations, that are sometimes a terror not only to idle men, but to the best men in the schools

We cannot profess to go into detail in our comments on the various addresses. We expect students to read them. They give a good view of the many-sided profession on which they are entering—a profession that is still imperfectly recognised and rewarded by the State, but that is none the less one which is felt to be more and more sound in its basis, honourable in its objects and interesting in its practice. The address of MR. MITCHELL BANKS will give the student some insight into the thoughts of men of former times and of the present day about the great medical profession. He has evidently a keen eye for all that is instructive in art and literature, even where these bear hardly and uncomplimentarily on his own profession. Perhaps he is a little one-sided in the quotations from which he would have us judge of the medical men of former generations and the estimate in which they were held. If so, he makes amends by his acknowledgment of the change in medical men themselves and in the appreciation of them by the public. We may, however, be allowed to express our strong conviction that the *morale* of the old practitioners was not so low and selfish and ignorant as the satirists would have us believe. Be that as it may, we live in a different atmosphere from theirs and have to be judged by different standards. We have knowledge and means of obtaining knowledge altogether different from those which they enjoyed, and we have to deal with a public intelligence of a different nature, though still very defective in regard to medical matters. We have alluded to grave words spoken by Sir G. HUMPHRY which throw, we think, a great responsibility on teachers and examiners. We shall conclude with a few words to students. Mr. BANKS well says that in a new but near century the medical students of to-day will be the representatives of medicine and will have to transmit and to enlarge the knowledge which they are about to receive. They will be without excuse if they do not do well. The preliminary study of physics which was so commended by Dr. BOWLES, and which is one great point of improvement in present medical education, will greatly facilitate their study of physiology and even of medicine. The study of biology in all its forms and branches will enlarge their conceptions of man, while it will show his vulnerability to organisms infinitely little known and till lately quite unknown. And in the study of actual disease they will encounter a problem which will move all that is best and kindest in them. Their success will mean pleasure to themselves, the diminution of suffering to their fellow-creatures and the advancement of a profession which with the growth of its own knowledge grows more and more in its own humility and in the respect of men.

No department of medical education is more important than clinical teaching. To it all other branches of training

are preliminary and subsidiary, and from its character the average practitioner draws most of the principles and inspirations that henceforth direct the practical work of his life. We propose to take a brief glance at the various methods of clinical teaching now in vogue in the chief British and Continental medical schools, and we do so recognising that each of these methods has its special advantage and its special adaptability to some types and grades of students or practitioners. Further, each of the methods presently to be enumerated is capable of being thoroughly effective in the hands of an able and experienced teacher, while none of them affords any guarantee of success in the absence of such qualities.

Let us look first at the method which is the favourite one with such men as HUGHLINGS JACKSON, NOTHNAGEL, CHARCOT and others. We mean the selection of a few typical and cognate cases of disease and the exhaustive demonstration of their symptomatology in the presence of a large class. This method is hardly practicable in the wards of a hospital, but can be readily managed in the hospital theatre or other room specially devoted to such purposes. It is certainly one of the most perfect of methods, serving to set forth in the most vivid and striking way the leading features, types and stages of the disease under consideration. The great vice of text-book descriptions is that the author, from considerations of brevity and convenience, is compelled to describe "typical cases," which are really the exception rather than the rule in actual practice. He often writes having before him a vivid picture of a disease in its most marked and accentuated form, but for one such case the student finds ten with all sorts of *nuances* of differentiation. The method of clinical teaching which we are now considering is well adapted to correct such misconceptions. When practicable the cases selected should include "type cases" by all means—they afford at least a standard for comparison,—but also cases presenting as far as possible the various stages of differentiation from that type. An ideal clinique, for which the materials even in a large hospital are not always available, would include the demonstration of two or more "typical" cases, then of several cases closely analogous to these, and lastly of examples of the disease in its most obscure and aberrant forms. It is too much to hope that such a selection could be generally available, but this is at least the standard to be kept in view.

The foregoing method, while possessing enormous and perhaps pre-eminent advantages, has also certain drawbacks. Unless corrected and supplemented by the other methods to be presently alluded to, it would tend to reduce the labour of observation to a minimum and to make the student too much inclined simply to receive without examination the *ex cathedrâ* statements of his teacher. The power of observation could not be cultivated to its highest point by this method alone. The observer must often be left to "break ground" for himself, to feel his way among obscure and perhaps conflicting symptoms, to make mistakes in his observations and to learn some of his best lessons from those mistakes. Further, this "comparative" method of clinical teaching which we are considering implies that the student has at least enough knowledge of his subject to understand a comparison and to check the information given to him by referring it to facts already acquired. Hence the method is perhaps not very well adapted to beginners. It is, however, *par excellence*, the method for the advanced student. He may safely be assumed to know ordinary diseases in their general forms, and to be solicitous to observe rather the rarer features of disease and its most exceptional varieties. For this purpose no method will compare with that in which comparison and contrast play the chief parts.

A second method has been always a favourite with many of the best teachers, especially if endowed with unusual gifts of eloquent and picturesque demonstration. Sir ANDREW CLARK'S clinical lectures in the wards of the London Hospital are among the best examples of this method which the present generation has seen. We mean the selection of one well-marked "type case" of disease and the exhaustive demonstration of all its features. In able hands this is a very effective method, especially for the student who is making his first acquaintance with the disease in question. It serves to fix in his mind a vivid picture of a particular malady and ensures that its leading features shall be retained throughout life. Clinical teaching loses much from the want of this power of creating a permanent impression. Most of it is too feeble and too devoid of attraction to be long retained in the mind. It fades away, and the student, looking back on years of perhaps hard and honest work in the wards, is astonished to find how few clinical cases have retained an abiding place in his memory. This second method of clinical instruction is capable of affording the student at least a few striking cases which he can never forget and which afford him examples of how many of his cases should and might be studied. This method, while obviously much inferior to the former one in its capability for enforcing points of contrast and difference, may still be utilised to some extent for this end. A teacher, for example, while demonstrating a case of pleural effusion will take occasion to emphasise the points of contrast with pulmonary consolidation, or if tabes dorsalis be his subject he will naturally contrast it with multiple sclerosis and bulbar paralysis. This is, again, to employ the method of contrast, but in a less effective form than in the case first considered. On the whole, this second method is probably the best of all for a beginner. Until he has acquired a fair grasp of the leading features of a disease in its ordinary form, subtleties of contrast and difference are manifestly beyond him. The student should, however, be carefully warned that typical cases are not the rule in disease and that he must be prepared for many exceptions both as regards the excess and defect of symptoms.

A third method is that in which the clinical teacher assigns a case to a student or group of students, allowing time for examination and diagnosis, and then by questioning elicits the conclusion that has been arrived at. This method has, in the case of the sufficiently advanced student, much to commend it. It is as it were a "natural" method of putting the student as nearly as possible in the position which he will afterwards occupy in actual practice. It throws him upon his own resources, draws out whatever stores of knowledge or experience he may possess, serves often as a reminder of his ignorance, enables him to profit by his mistakes, and is in many other ways salutary. It calls for much tact and patience on the part of the teacher, who must know what to expect from his pupils, help them over

real difficulties, encourage them in the right place, rebuke ignorance and haste when necessary, and hold up a correct ideal of observation and diagnosis. Whatever other plans are employed, this last can never be neglected. All three methods have their place and their utility and no one of them should be regarded as in any way excluding the others.

THE therapeutics of cholera are undoubtedly secondary in importance to the prophylactic measures which guard the individual and the community, but they are none the less worthy of the closest attention of the profession. Letters on the treatment of cholera, or, indeed, of any other disease published in lay papers and addressed to non-professional readers, are open to the gravest objections. One correspondent of a daily paper, writing from Hamburg, deals with the castor-oil treatment, and says that it would not meet with the smallest support on the Continent from men "at handgrips with the cholera." On one point he betrays only a slight acquaintance with the facts. In different parts of his letter he indulges in high eulogy of Sir THOMAS WATSON and his strong condemnation of measures for "carrying off the offending matters" from the intestine, and advises his readers rather "to quiet the irritation and stop the flux as soon as they can."

This was undoubtedly Sir THOMAS WATSON'S advice and that of nearly all other practical physicians in Great Britain up to the time (1866) when Dr. (now Sir GEORGE) JOHNSON pressed with so much ability the use of castor oil, which he had employed in 1854. He converted his distinguished leader and teacher Sir THOMAS WATSON, who, with that frankness and honesty of action and of language which make his character and his writings so powerful in the profession, adopted the view of Dr. JOHNSON, that at certain stages of the disease castor oil was to be given in opposition to the then general opinion that all diarrhœas in a cholera season should be stopped as soon as possible. Sir THOMAS WATSON had no personal experience of this new treatment, and adopted it solely under the spell of his able colleague's influence. Still, Dr. JOHNSON thought much of Sir THOMAS WATSON'S conversion and made much of it, and continues to do so. Nor was he the only convert. There are many others, such as Dr. MCCOY, who published in THE LANCET of Aug. 18th, 1866, notes on the treatment of 123 cases of cholera in the Liverpool Parish Infirmary. He gave castor oil for the most part after the stage of collapse had set in, and considered that the eliminative treatment had been most successful. Dr. MACLEAN of Netley (*vide* THE LANCET, Feb. 17th, 1866), though thinking that in this disease there was enough of purging, without calling in the aid of artificial purgatives, spoke respectfully of Dr. GEORGE JOHNSON'S treatment, and said that if again smitten he would rather fall into the hands of a *purging* than of an *astringing* physician. He spoke with the authority of one who had not only seen much of the disease in India, but had gone through it himself and attributed his recovery to a faithful servant, who supplied him with iced soda-water, and later to a judicious medical friend, who, instead of dosing him with much physic, sustained him with suitable food in teaspoonfuls, such as arrowroot, well boiled, flavoured with a bitter aromatic, or a teaspoonful of brandy when it could be borne; then he gave him milk and lime-water flavoured with curaçoa, advancing to beef-tea &c. as the stomach recovered itself. Nevertheless, the general opinion of the profession and of those who have seen most of the disease has been in accordance with Sir THOMAS WATSON'S first views and against any system of treatment by purgation.

The most general agreement in reference to the treatment of cholera is perhaps in regard to the composition of the blood, to keep it normal as long as possible, and when it has lost its serum to restore the same by convenient drinks and by warm water injections more or less medicated by saline venous injections &c. No one has as yet demonstrated that in the early diarrhœal stage of the disease a patient is the better for having purgatives systematically administered any more than a patient with typhoid diarrhœa would be the better for similar treatment. On the contrary, experience has seemed to show that by such treatment, gastro-intestinal distress is aggravated, which in cholera cases tends to hasten the collapse of the patient and bring about uræmic complications. Rather it appears that the use of medicines and food which allay irritation and diarrhœa in the early stage are very important. In the selection and use of these there is infinite room for the judgment and experience of the practitioner. As regards treatment of the later and graver stages of the disease, Sir GEORGE JOHNSON has done much good by directing attention to its complicated character and to the harm done by overpowering the patient with opium and stimulants. Our own correspondents report that on the Continent drugs are considered in this condition to be of secondary importance, and that the chances of recovery depend on the use of means by which the lost fluids of the body may be restored and the heat of the body recovered. Our Paris correspondent's account last week (p. 795) of Dr. GAILLARD'S treatment of the algide stage with rubbings, hypodermic injections of caffeine and saline injections of sterilised water with saline ingredients in solution into the saphenous vein, or, where the patient is able to swallow and keep down fluids, the gradual administration by the mouth of a litre of sweetened water containing fifteen grains of lactic acid, would seem to show that these measures have saved many lives. Of 173 cures Dr. GAILLARD attributed twenty-five to the transfusion of sterilised serum. Fifty-two very serious cases "were saved" by the lactic acid treatment only without transfusion. It is evident that the operation of transfusion deserves much attention in view of possible resuscitations of the epidemic. We have already alluded to the rectal injections of warm water, containing benzoate of soda or tannin, used and so strongly recommended early in the disease by Professor CANTANI of Naples. Pending the discovery of more specific remedies, the best hopes of diminishing the fatality of cholera seem to centre in the judicious treatment of preliminary diarrhœa, and for the later stages in the restoration of the lost constituents of the blood. If the administration of castor oil were specially indicated it would be in those comparatively rare cases in which there is choleraic collapse and cramps *without evacuations*, but with evidence of distension of the intestines with fluid. The general opinion seems still to be that purgatives should not be regularly administered in this disease, but reserved for

exceptional cases. The removal of peccant matters is an old and popular theory, but the application of it in grave disease requires much consideration.

THE present month is the one usually chosen as the time for departure by that large and increasing class who for various reasons are compelled to winter abroad. The main idea on their part is to escape the cold and fogs of November, and perhaps hardly enough consideration is given to the conditions of climate which await them in the month of October in the sanatorium they may select. Thus, whilst October is too early for Algeria or Egypt, it is too late for some of the Swiss resorts, and even at some of the most favoured spots on the northern shore of the Mediterranean there are serious drawbacks to this season. In the Riviera, for example, it is one of the wettest—often the wettest—months in the year, and the rains are frequently excessive. As much as ten inches and upwards of rain have been recorded at Mentone during this month, and the torrential character of the rains sometimes puts serious difficulties in the way of locomotion. The traveller seeking health who reaches his winter's rest amidst this autumnal deluge is apt to have his dreams of perpetual sunshine rather rudely dispelled, and as first impressions count for much as regards their moral effect, it is very undesirable that the first acquaintance with a very lovely and charming region should be made at a time when its disadvantages are at a maximum and its good qualities most obscured. Other places might be named at which malaria still lingers during October, and on the whole it must be admitted that, like April, it is a difficult month for which to suggest perfectly unexceptionable resorts. Many travellers might with advantage consider whether they can do much better than spend the month of October somewhere on our own southern coasts. By the last week in October the difficulties of choice to which we have alluded are practically over, as this is not too early to leave for the Riviera, Algeria or Egypt. November opens up the favourable season at each of these resorts, by which time both the summer heat in some cases and the autumnal rains in others are usually sufficiently abated. October is also a favourite month in which to start for the long sea voyage to Australia and New Zealand. Here, again, there is the drawback that the time marked out for departure by the exigencies of the English climate does not fit in very well with the climatic conditions to be expected at the termination of the journey. The traveller who starts for the antipodes in October may expect to arrive either about the beginning of December if he selects a steamer, or about New Year's Day if he voyages by sailing vessel. In either case he arrives at quite the worst season of the year. Many parts of Australia have a most admirable climate for at least eight months in the year, but the summer heats are nearly everywhere excessive, and the frequent dust storms are both very annoying and seriously hurtful, especially to pulmonary cases. If the traveller arrives in Australia about midsummer, two or three courses are open to him. He may try some of the elevated resorts, such as Mount Macedon in Victoria, or Katoomba, Armidale, and Mount Victoria in New South Wales, or he may cross at once to Tasmania, where the summer climate, though hot, is quite tolerable, or he may proceed to New Zealand. In any case he should make a very brief stay in the large cities or lowlands of Australia.

Opinions differ as to whether October is a good month at which to arrive at Davos and the other elevated Swiss sanatoria. On the one hand, it is urged that there are advantages in the patient becoming habituated to the strain of altitude before encountering the strain of cold, while on the other hand it is disputed whether the full advantages of the high Alpine climate can be enjoyed until the winter snows have definitely set in. There seems little doubt that the transition stage from autumn to winter, like the corresponding period of transition from winter to spring, is one of the least agreeable portions of the year. Davos owes a good deal of its success to the general uniformity of its meteorological conditions during the period of resort thither and to the general acquiescence of patients in the somewhat rigorous rules of life which these conditions demand. Periods of transition raise various debatable points and open the door to many possible indiscretions.

On the whole, our remarks would seem to point to the conclusion that invalids proposing to winter abroad should not unduly precipitate their departure, unless under some special circumstance. The last week in October will often be found about the best time for saying adieu to the shores of Great Britain. While we would thus deprecate a premature departure for winter quarters, we would even more strongly deprecate a premature return. Many resorts, such as Egypt, Algeria and Morocco, become too hot in April, but this season is for most invalids far too early to think of returning to England. April and May are very often among the most trying and treacherous months in the year for many patients. The Riviera is still delightful at this time, or Biarritz might be tried with advantage, or such mild Swiss resorts as Montreux or Vevey. In any case the invalid, if his case be one of real gravity, should not arrive in England before the beginning of June.

Breaking off home ties and starting for foreign and often strange lands are apt to be trying to all, and especially to the invalid. But he has much to compensate him—escape from the sunlessness, the rain, the fog, the depressing gloom of the British winter, and the prospect of some months of residence in beautiful regions, full of natural and historic interest, and warmed and brightened by abundant sunshine. If to these be added the consciousness of renewed vitality and a fair hope of ultimate recovery, the fate of the invalid in his winter quarters need not call for commiseration.

Annotations.

"Ne quid nimis."

ONE ASPECT OF THE SCARLET FEVER PREVALENCE.

WITHOUT wishing in any way to detract from the importance of the work which the Metropolitan Asylums Board are carrying out in the isolation of scarlet fever cases, we cannot but feel that the constant announcements which are being made as to the gigantic operations in progress are calculated to mislead the public mind and to convey a wrong impression as to the gravity of the circumstances at present

affecting the metropolis. It is perfectly true that scarlet fever is somewhat widely prevalent, and that great value attaches to the isolation in hospital of all those cases which cannot be properly isolated in their own homes and which would otherwise tend to spread the disease, especially by attendance at elementary and other schools. But, after all, when this prevalence is compared with previous prevalences of scarlet fever in London by means of the only comparison available—namely, the amount of death which it causes—the result is by no means alarming. During the month of July the deaths from scarlet fever in London varied in the four weeks from 2 to 4 above the average for the same weeks for the previous ten years, and in the fifth week they were 2 below the average. During the four registration weeks of July the deaths in three weeks varied between 2 and 11 above the average, and in the fourth week they were 3 below the average; and during September the deaths varied in the first three weeks between 3 and 13 above the average, whereas during the last week they were 2 below the average. Now, when we remember that we are dealing with four millions and a quarter of people there is nothing so very grave in our so-called great epidemic, which is actually detaining people in foreign cities where the risk to life is infinitely greater than in the metropolis. The truth is that were it not that we know, during this mild prevalence of scarlet fever, for the first time how many persons are attacked as well as how many die, and were it not for the efforts made to get everybody into hospital and then to announce the totals, very few people would ever have known that anything unusual was in progress. Notification is of great value; its value has largely to do with the facilities for securing the isolation of those needing removal to hospital; but the two systems of notification and isolation ought not to produce a needless scare.

DISEASES AND THEIR TREATMENT.

IF we were in search of a title at once comprehensive and concise by which to describe the whole sum and substance of medical practice we could find no fitter phrase than that of "Diseases and their Treatment." The joint endeavours of surgeon and physician have no wider field than this, and within its compass there is more than enough of scope for their combined energies. So great a work implies an equal responsibility. By common consent also it demands for its performance a special training and an intimate knowledge of its subject matter. The state of the human body in health and in disease forms but a part of this. Its counterpart is found in the numerous means available for its relief when needful, but capable if misused of inflicting upon it lasting injury. It would be well if these critical relationships were more clearly recognised than they are by many at the present day. In all times, it is true, empiricism has treated them with reckless levity, and in this respect its character continues unaltered. Latterly, however, it has formed wider and somewhat unlooked-for connexions. We find many, for example, of the general public imbued with its mock medical principles, and drugs have but to earn a nominal reputation that they may be used without further precaution than that suggested by the guess therapeutics of these amateur doctors. Perhaps a benevolent laxity of the profession in such matters has done something to maintain this practice of self-treatment. Worse if possible, as offending against a clearer light of knowledge, is the error which has led some chemists of intelligence and reputation to prescribe in illness. We are well aware of the difficulties in which men of this class are often involved on this account by the importunity of customers. We gladly acknowledge also their frequent escape from the snares thus laid for them. All the more, therefore, must it be a matter for regret that in some quarters there exists a tendency to encourage this unwarranted form of practice. An advertisement has recently announced, for example, among the other attractions of a publication devoted to the interests of druggists, a remarkable treatise on diseases and their treatment by a London physician. We might look far and wide without finding a more evident incitement than this to counter-prescribing. There is clearly an implied fallacy in the introduction of such treatises as this into a druggist's handbook. It is impossible by any such theoretical disquisitions to make a chemist a medical man, and, this being the case, he is practically encouraged by literary efforts like the above to undertake duties of great and critical significance for which he must be unqualified. Most of his class, we trust, will have wisdom enough to disregard the subtle inducement, and, however willing to increase their knowledge of medical generalities, will prefer to seek for custom with repute in the legitimate services of their useful calling. An inquest recently held by Mr. John Troutbeck serves to give point to the above remarks. It transpired that the deceased, a child aged six, had been prescribed for by a chemist. As she got worse, Dr. Edward J. Nix was called in, who found her seriously ill. After death a post-mortem was made, and acute peritonitis was found. The chemist had prescribed aromatic sulphuric acid and tincture of capsicum, which Dr. Nix testified would accelerate the disease. The coroner pointed out the great danger of chemists prescribing, and the foreman of the jury stated that the majority of the jury were of opinion that chemists should not be allowed to prescribe in any case. A little healthy expression of opinion by juries in such cases would do much good.

AN IRREGULAR TAX ON MEDICAL PRACTITIONERS.

MEMBERS of the medical profession are, like all other members of society, exposed to the nuisance known as "tipping," which is meekly endured as one which cannot be cured, though they might claim exemption seeing the enormous amount of gratuitous work performed by them. There is, however, one very objectionable form of "tipping" against which a protest must be made. We allude to the practice which prevails more or less generally throughout the country by which medical witnesses are docked of the shilling part of their fees at coroners' inquests, these shillings being supposed to be, by a kind of unwritten law, the perquisites of the "beadle" or "coroner's officer." In one town the shillings are not even tendered to the medical witness, the beadle keeping these as his right. More frequently they are handed up to the witness to be duly handed down again. County coroners generally pay the fees themselves, and in these cases the police officer in charge of the case is often the recipient of the odd shilling or shillings. So far as Middlesex is concerned the custom admits of at least a plausible explanation. Although the coroner is required by a former as well as by the present Act to pay the medical witnesses immediately after the termination of the inquest, this has not always been done, and fees have been allowed to accumulate for some months. They have then been taken by the coroner's officer to the medical witness, who has felt compelled to give him the odd shillings for his trouble. This, to our own knowledge, is what happened many years ago; whether it obtains now or not we do not know, but we hope not. When these fees are paid, as they always ought to be, immediately after the inquest, there can be no reason why the medical witness should not receive the whole of the fee specified by the Act without any deduction whatever either for coroner's officer or police. In all well-regulated police forces the acceptance of any gratuity, except with the express sanction of the head constable or superintendent, is viewed as a gross breach of discipline, and if discovered is punished severely. All

medical witnesses have during their student career and subsequently rendered kind assistance to the police without any hope or expectation of requital, and police officers ought in their turn to be civil and obliging to medical witnesses, in common with all members of the community, without expecting a reward.

A BLEND OF CIGAR STUMPS.

A TRICK of trade which owes its recent exposure to the energy of the Inland Revenue officials deserves a passing notice. The manœuvre in question, though ingenious and even in a sense thrifty, cannot claim the merit of originality, inasmuch as it is modelled on a well-known peculiarity of idle boyhood. It consists in collecting the unused ends of smoked cigars and retailing them as the crumbled body contained within a sound outer leaf of tobacco. We need not dwell upon the rank dishonesty of this proceeding, by which the public and the national revenue are equally injured. Its disgusting uncleanliness would shock the least fastidious lover of tobacco, while, on the other hand, it is open to grave objection on the ground of health. The cigar stump, sodden and coated with mucus and saliva, could hardly be relied upon to resist the action of any germs it might harbour, and who can tell what varieties these might not include over and above the ordinary agents of putrefaction? We need not pursue the argument further. The sanitary teaching it implies is obvious.

PRACTICAL SANITARY WORK IN BENGAL.

WE are glad to find that at last, according to *The Times* correspondent in India, some practical action is to be taken in the direction of attempting to deal with the disease-causes of Lower Bengal. The Bengal branch of the Indian National Congress has formally represented to Sir Charles Elliott, the Lieutenant-Governor, the all-important questions of sanitation, the supply of pure water and the adoption of an effective drainage system for the province. Large tracts of land have become water-logged and the soil is a damp sponge, impregnated with human and animal impurities. Malarial fever is the scourge of whole districts and the effect on the health of the people is terrible. This is of course no new thing. It has been long known, and Government commissions and committees have reported on it again and again. The evil and the remedies were alike known, but were the people ready and willing to aid in their application and contribute towards it according to the measure of their resources? Sir Charles Elliott grasped the situation long ago, and he has wisely embraced the opportunity which this appeal to him to take in hand a system of drainage for the whole province has offered. He quite agreed that the alleged causes of the evils in question were the real ones, and that they required to be dealt with in the way and on the scale that had been represented. But under what conditions and subject to what limitations is the Bengal Government recommended to enter on so large and costly an enterprise? To test the sincerity of the appeal and the reality of its alleged representative character a mixed committee was appointed, of which the native members formed a large majority, and propositions of a very practical character were submitted to them. The members of the committee accepted the responsibility of their position and have furnished a reply, in which they show that they clearly appreciate the scope and urgency of the problem, about which there can, indeed, be no doubt, and are ready to afford support to the financial and legislative measures necessary for dealing with it. Railway embankments, the silting up of rivers and subsidiary lines of drainage, together with an increasing density of population and other insanitary conditions, have of late aggravated the evils. A Brahmin gentleman, speaking of a district within a few miles of Calcutta which thirty years ago had a comparative immunity from malarial fever, says that now quinine is almost as much needed by a family as rice. The committee has passed resolutions of a practical character empowering the Government to require municipalities to combine together for the purpose of executing sanitary works in a combined area, and for ascertaining the wishes of the majority of the inhabitants or owners of property in districts where disease is unduly prevalent in regard to any drainage or sanitary scheme considered necessary to deal with it. If the majority, as represented by the district board, supports any such scheme, the Government is empowered to undertake it and to raise the necessary funds from the affected area. We concur with *The Times* correspondent in thinking that the Lieutenant-Governor is to be congratulated on the step he has taken in practical public health legislation and in regarding this experiment of a representative conference, with a large majority of native members, as of special interest at the present time.

THE SENSE OF SMELL.

IN a recent number of the *American Journal of Psychology* Professor Jashow communicates the results of observations made on a student twenty-one years of age, who suffered from complete anosmia. An abstract appears in the *Neurologisches Centralblatt*. The patient's mother had had no abnormality of smell until she was thirteen or fourteen, when she had completely lost the sense. In the patient on whom the observations were made the defect was evidently congenital. Taste as well as common and thermal sensibility were undisturbed, and the patient therefore offered a good opportunity for testing the sensations in the mouth and nose, and it might be inferred that differences which he could perceive in savoury substances were perceived not by smell but by some other sense. The interesting investigation showed that the greater number of taste perceptions, as they are commonly understood, are really to be referred to smell. No distinction could be made between tea, coffee, and hot water, so that he took the last named, with sugar and milk, as his ordinary breakfast beverage. He confused bitter almond water and water three times in five trials, while he correctly discriminated ether and water, the former, he said, producing in his throat the sensation of peppermint. With ammonia and ether he was right six times in eight trials; and Professor Jashow ascribes the two errors to fatigue. The various fruit syrups he could not distinguish, merely recognising them as sweet. Mustard produced a sharp sensation on the tongue, but was not recognised any more than pepper, while cloves and cinnamon were distinguished. Differences of one degree of temperature were easily recognised.

PROTECTION OF VINEYARDS FROM PHYLLOXERA BY METALLIC SALTS.

SOME interesting particulars in regard to this year's claret vintage in the Medoc district are contained in a letter published in *The Times* of the 29th ult. The report is all the more interesting as it gives some evidence of the progress made in the treatment of vines with a view to their protection from disease. The vineyards of France, it is not surprising to hear, have passed through a severe ordeal this year. In the Medoc district, as in England, bitterly cold weather was experienced on April 19th, and there was a frost such as had not been known since May 6th, 1861, the vineyards inland suffering considerable damage. On this account it was conjectured that many of the large estates would only yield half the quantity of last year's crop. On the other hand, the vines on the more elevated lands, together with those along the river, were preserved, the latter owing, it is presumed, to the water of the Gironde—which at that period of the year would be at about 43° F.—having raised the temperature of the air with which it came in con-

tact. The vineyards at Château Loudenne, which occupy a position along the banks of the river, are expected to produce 800 hogsheads of wine, which will be equal to the yield of 1891. Although the flowering of the vines took place under the most favourable circumstances, the month of August further decreased the prospects of an average yield in many places owing to the exceptional heat which then prevailed. At the Bordeaux Observatory the thermometer registered 108° F. and the grapes were in many places scorched and burnt. In spite of all these trials the quality of the 1892 vintage, it is considered, should be good. Although the crop will only be about one-half of the average yield, the vines are in a healthy condition, and the weather continuing favourable for the ingathering of the grapes, the 1892 wines of the Medoc should possess both body and colour. By care and labour the vineyards have been completely freed from the mildew; and the phylloxera, if not completely exterminated, is at least held in check on all the well-managed vineyards. How the pest has thus been combated is not explained. If, as it is suggested to us, the remedy has consisted in applying a mixture of slaked lime and copper sulphate to the vines, it would be satisfactory to hear from some decisive authority, in view of the extraordinary assimilative powers that plants possess for metallic salts, whether after this treatment any important quantity of metal finds its way into the juice of the grape. At any rate, the recent success that has attended the efforts of those who take part in this most important and interesting industry is a matter for congratulation, and those who drink claret will hail with satisfaction the report that the vintage of '92, like that of '87 and '90, is likely to be productive of a good "full-coloured and fruity wine." The total production of wine over the whole of France in 1891 was 663,000,000 gallons (of which the Gironde department alone produced 54,000,000 gallons), and its value, according to the report of the British Consul at Bordeaux, was no less than £40,600,000.

DISEASES AMONGST MULATTOES AND INDIANS.

IN the *Boston Medical and Surgical Journal* of Aug. 25th are abstracts of two interesting papers on the above-mentioned subject. The first is by Dr. W. A. Dixon. He comes to the conclusion, from observations extending over a period of more than thirty years, that the offspring of mulattoes are the subjects of constitutional disease to a greater extent than those of unmixed blood, and when confined entirely to their own class—that is, without the admixture of pure negro or white blood—they scarcely ever reach the fourth generation in descent. Tuberculosis exists to an excessive degree among the descendants of mulattoes; they are inferior in vitality, intelligence and morality, and show a high rate of mortality. Dr. Dixon has found it quite noticeable that mulatto girls develop at a younger age than either white or negro girls, and that as women they fade much sooner; also that after the second generation of pure mulatto breeding practically all the children born are females. He remarks that it has already been proved in other races that human hybridity cannot be maintained without reversion or fresh supply from parental blood. He suggests the possibility of the danger that tendencies to tuberculosis and other strumous diseases may be increased in the United States by the large mixture of nationalities which is taking place in it, and points to the immunity enjoyed by the Jews and other unmixed races with regard to these affections. In the second paper referred to Dr. A. B. Holden, in an article on the Sanitary Effects of Civilisation, calls attention to the fact that it is the "transition period" in which the constitution of the Indian suffers. If he could be given at once a knowledge of the laws of health and then have the best hygienic surroundings, he would undoubtedly be better off than in a state of savagery. "The evils of imperfect civilisation and misapplied efforts at civilisation, however, are serious enough to deserve careful attention." The gradual, though slight, decrease in the numbers of the Dakotas illustrates the truth of this proposition. Living in the tepee or lodge, it was easy to move away from any place as soon as it became too dirty for comfort. But now they remain in their houses in the same place, no matter how filthy the neighbourhood becomes. They have never learnt to cook the new food properly, so that there is much indigestion. When children are brought from camp to the boarding-schools a marked improvement is invariably seen in their condition, while they very often suffer from a return to camp life. Dr. Holden then considers tuberculosis among the Indians. "Consumption" and scrofula were the causes of 900 out of 1453 deaths reported in 1888. The death-rate from phthisis alone is stated by different physicians at from 40 to 75 per cent. "The savage is less liable to become sick or to be injured, but when sick or injured to the same degree is more liable to die than the civilised man." In this respect he resembles the negro. Tuberculosis is found in every Indian tribe. In a few places malaria causes more deaths than phthisis. From statistics gathered from agency physicians it appears that scrofula is often very prevalent where no syphilis can be found, and that scrofula may not be encountered at all in tribes where syphilis is common. In the life of the Indian the sanitary evils are those of dress, dwelling and diet. These evils increase the natural tendency to tuberculosis and serve as exciting causes where such a tendency already exists.

THE CROWN REPRESENTATIVE FOR SCOTLAND.

WE do not regret the delay which is taking place in filling the vacancy in the Crown representation for Scotland in the Medical Council. The difficulty of the Government arises partly from the fact that there are so many eligible persons in Scotland for such a post. There are colleagues, in the professoriate, of the late Sir George Macleod whose devotion to medical educational work entitles them to the post and whose voices would command great respect on the Council. On the other hand, the universities and the corporations are already so strongly, and the body of the profession so inadequately, represented that there is much to be said for the nomination of a gentleman not officially connected with either universities or corporations, but representative of the wants, educational and otherwise, of the profession. There is precedent for this in Scotland, whose Crown representative for many years was the late Dr. Fergus, one of the able general practitioners of Glasgow.

THE SUPPRESSION OF GLANDERS.

THE Board of Agriculture has at last been moved to do something in preventing the extension and prevalence of glanders by issuing an Amended Order, which is to come into operation on the 17th inst.; but most unfortunately the carrying out of the measures it contains is left to the multitudinous local authorities throughout the infected counties, and their enforcement is permissive, not compulsory. The Board must be perfectly aware of the uselessness of such machinery for this purpose, as it has signally failed in everything it has been called upon to undertake in this direction for a quarter of a century, and will in all probability fail again after making serious inroads upon the finances of the ratepayers. We are pleased to note, however, that the Board has recognised the necessity for treating glanders and farcy as one disease, for they were never anything else, so that the confusion and loss resulting from this error can now be avoided. Animals affected with either may be slaughtered at once, as well as those which are suspected of being

contaminated. Compensation is to be given for such slaughtered horses or mules when diseased to the amount of one half their value; in the case of suspected animals destroyed the full value is to be awarded. Such compensation is likely to prove a great inducement to fraud, and with respect to diseased animals is decidedly unfair to the ratepayer. Suspected stables may be entered and placarded if found to be infected, and power is given in other ways to control the disease; but the task of combating this destructive and dangerous equine scourge should have been undertaken by the central authority. No notice has been taken of the risk of having glandered horses imported from infected countries; in fact, we can only look upon the Order as an attempt to silence the agitation that has been going on for energetic action in dealing with the disease and to evade responsibility and trouble. Such an Order might have been issued any time during the last twenty years, and before the impotency of the local authorities had been so clearly demonstrated.

DEATH OF LORD TENNYSON.

AT the moment of going to press we learn that Lord Tennyson, enfeebled by years, and after lingering in a condition of extreme weakness, but unruffled by physical pain, has passed away. There is probably no living Englishman whose loss will be more mourned. He has left a gap that cannot be filled, for as a poet he stood far above all his compeers. If he occupied a position beneath some of our country's greatest poets, in power of creation and dramatic force, he was above most of them in grace and delicacy and refinement of expression and diction. There was nothing false or meretricious about his verse. He had the true touch of genius, and, what is a rare gift among versifiers, an evenly balanced mind. Lord Tennyson was always true to himself. He did not seek to lead a forlorn hope of attack against the false aspirations and ideas of his age. His tolerance and charity were broad, his sympathies deep, and a vein of tenderness and reverence ran through all he wrote. He died in the early hours of Thursday morning, after a brief and painless illness.

THE IDENTITY OF SYRINGO-MYELITIS AND LEPROSY.

AN important paper was recently read by Dr. Zambaco before the French Académie de Médecine on the identity of syringo-myelitis and leprosy. He had seen in Constantinople a considerable number of lepers, and became gradually convinced that the affection described as Morvan's disease, or syringo-myelitis, was no other than leprosy. He had also carefully studied the subject in Brittany, where syringo-myelitis had been first described, and where later on the disease was reported to occur frequently. He observed in all cases which were detained in hospital as incurable deformity of fingers and various other trophic changes, such as loss of one or more phalanges, muscular atrophy, anæsthesia or ulcerations, and all these symptoms he had previously observed in lepers. Photographs of a large number of these were shown which indicated a great resemblance between the two affections. Names of localities, such as *lambezeller*—i.e., "leper village"—and of cemeteries, bridges &c., which are still called *des lepreux*, testify to the fact that the disease has been endemic in Brittany since the earliest times. Old pictures of saints and fairies represent lepers just as they appear now. In a picture, for instance, of the miracles of St. Vincent, the saint is represented as restoring to a leper child its missing fingers. Dr. Zambaco believes that he is justified in concluding from stones, figures, and other objects found in many graves in Brittany that leprosy was imported into the country by the Phœnicians. He had discussed the subject with many physicians in various hospitals in Paris also, who fully admitted the resemblance between the affections. A case in Charcot's ward which had been diagnosed as typical syringo-myelitis, and in which several fingers had been painlessly amputated, was brought to the Hôpital St. Louis and introduced to MM. Vidal, Besnier, Fournier and Hallopeau, all of whom declared the patient to be a leper. In some Oriental countries leprosy assumes a much severer form than it does in Brittany, where the disease often remains abortive, and appears to inexperienced observers as an entirely different or even perfectly new disease, and as such Morvan described it. His syringo-myelitis, however, comprises, according to Dr. Zambaco, various diseases which should be separated, one division clearly representing "lepra anæsthetica," as von Daniellsen has described it; while others still lack an exact description. Permanent residents of Constantinople are not subject to leprosy, and in those rare instances in which it has been acquired it has always been found that the ancestors of the patients had lived in the Cyclades or other islands of the Greek archipelago.

THERAPEUTICS IN THE WESTERN INFIRMARY, GLASGOW.

IT would be wrong to say therapeutics is conspicuous by its absence from the clinical teaching in the University of Glasgow, but it is a striking fact that the Professor of Therapeutics has no beds at his disposal with which to illustrate his teaching on the uses of medicines. This is a most unusual and anomalous state of matters, contrasting with that of the other Scotch universities and other medical schools. There is at present a vacancy for a visiting physician in the Western Infirmary, and it does seem most reasonable that it should be filled by one occupying so responsible a post as the Professor of Materia Medica and Therapeutics, to say nothing of the personal fitness and claims of Professor Charteris, which will be everywhere recognised. It is due to the students that such an appointment should be made, and that the right use of medicines in the treatment of disease should be demonstrated by one whose special function it is to study them and their action. Professor Charteris, besides being Professor of Materia Medica and Therapeutics, has had large experience in teaching clinical medicine in connexion with the Royal Infirmary of Glasgow.

THE DIGESTIBILITY OF TRIPE.

WE have been challenged to pronounce an opinion on the dietetic virtues of tripe, an article of food which is largely consumed in certain parts of the country, especially during the winter months. Tripe consists of the soft muscular walls and mucous membrane of the stomach of ruminant animals with a small proportion of delicate omental fat adhering, from which, however, all fibrous portions of the serous covering, or peritoneum, have been removed. From frequent experiments it has been proved that tripe stands high in the list of albuminous substances that are quickly acted on by the gastric juice and reduced to a state of solution, and has therefore acquired a reputation for digestibility. But plain boiled tripe in itself is a very insipid article of food, and in order to make it palatable the art of the cook has to be invoked, which, whilst making it more "savoury," causes it often when so served to be an offence to the stomach. The usual mode of serving tripe in this country is to boil it with milk and onions, and there can be little doubt that such a combination is not particularly digestible. Tripe is also sometimes fried in batter, but unless very carefully cooked it is apt to become leathery. If only plainly boiled in water it requires a considerable amount of condiments in the shape of salt, pepper and mustard to make it acceptable to the palate. There-

fore tripe, as usually cooked, though an excellent dish for strong stomachs, is, owing to the ingredients added to it, not always so suitable for persons of weak digestion as has been supposed. One interesting point regarding the consumption of tripe is the local favour it receives in different parts of the country. It is a favourite dish among the artisans of the large towns in the midlands, whilst it is apparently disregarded in the south and west. A similar local partiality prevails in France, where Normandy has acquired a special repute for the dish *tripes à la Normandie*, which is served in many Parisian restaurants as a delicacy of no mean merit. London also consumes a large quantity, where during winter it is a favourite supper dish among the artisans and lower middle classes. The preparation of tripe, as far as London is concerned, is in the hands of only a few firms, who supply the small retail shops. London tripe, moreover, has obtained a high repute on the Continent, one firm exporting annually £40,000 worth, chiefly to Russia and Baltic ports.

THE NEW FEVER HOSPITAL.

THE events of the week only emphasise our recent remarks on the magnitude of the task devolved by the Legislature on the Metropolitan Asylums Board. Chief among these was the inspection of the new North-Eastern Hospital at St. Ann's-road, Tottenham. This hospital, meant for the accommodation of 456 patients and 207 officers, has been built and furnished in about six weeks by 900 men working under about twenty firms. The original site was fifteen acres, but it is proposed to buy neighbouring land to the extent of four acres more with property on it. It seems only fair, when buildings for fever are erected, that the owners of property immediately affected should be compensated or bought out. Some idea of the extent of the building will be gathered from the fact that a wall of 800 ft. in length has been erected next St. Ann's-road and a 7 ft. fence on the remaining sides. The buildings comprise twenty-two ordinary patients' blocks, two isolation blocks, two administrative blocks, store blocks, dormitories, laundries, disinfecting rooms &c. The whole are built of wood, with every device for warmth, ventilation &c., the architects being Messrs. A. & C. Harston. The responsible post of medical superintendent of this hospital has been given by the Managers to Dr. R. A. Birdwood, lately medical superintendent of the small-pox hospital ships, who will doubtless give a good account of the cases committed to him.

WATER-SUPPLY IN SOUTH LONDON.

THE analyst to the Board of Works for the St. Saviour's District, Southwark, has recently reported that samples of the water obtained from the mains of the Southwark and Vauxhall and Lambeth water companies were decidedly impure and almost sufficiently bad to be condemned as unfit for drinking. In support of this statement the following results of analyses in grains per gallon were handed in:—Total solid matter, Southwark and Vauxhall, 18·50; Lambeth, 19·00; loss on ignition, 3·00 and 3·00; mineral solids, 15·50 and 16·00; albuminoid ammonia, 0·0085 and 0·0070; combined chlorine, 1·25 and 1·30; oxygen required, 0·063 and 0·073; hardness, 12·4 degrees and 12·4 degrees. Although these figures contrast unfavourably with those obtained in July last and later in October, we are not disposed to admit that they are evidence of any decided or gross pollution. As will be seen, out of from 18·50 to 19·00 grains of total solid matter from 15 to 16 grains are of mineral character, the combined chlorine being 1·25 and 1·30 and the hardness 12·4 in both instances. The loss on ignition was equivalent to 3 grains, which might or might not have been objectionable matter; there is no evidence to show. Moreover, the water was free from taste and odour, and when viewed through a 2 ft. stratum was clear and of a yellowish-green tint. These data are hardly sufficient, we think, to establish for certain that the water was seriously contaminated. The quality of the metropolitan water cannot, of course, be expected to improve, seeing that the supply is running shorter every year, and the risk of pollution is consequently becoming greater. However, there is every hope that the labours of the Royal Commission on Water Supply, which resumed its sittings on Wednesday last, will not be in vain. But in the meantime it is very right that pressure should be brought to bear upon the existing companies by conducting independent chemical analyses of the water from time to time, so that at least efficient filtration may be ensured. The results, however, require very careful consideration before a conclusion based on such analyses can be arrived at. It will be interesting to compare the above analysis with the report on the Lambeth and Vauxhall water, which will be issued shortly by the official experts, Messrs. Crookes, Odling and Frankland.

THE MEDICAL SOCIETIES.

THE Medical Society of London will open on the evening of Oct. 17th, at 11, Chandos-street, Cavendish-square, with an address by the President, Mr. Hutchinson, F.R.S., on "Names and Definitions in Disease." A number of papers of importance have already been promised. Dr. Bristowe, F.R.S., will deliver the Lettsomian lectures on "Syphilitic Affections of the Nervous System." The annual oration will be delivered by Professor W. Mitchell Banks, F.R.C.S. A considerable number of new Fellows have joined the Society, and the session promises to be a busy and successful one. The Pathological Society of London will hold its first meeting on Tuesday, Oct. 18th; the first meeting of the London Clinical Society will be held on Oct. 14th; and the Royal Medical and Chirurgical Society of London will inaugurate its session on Oct. 25th. The meetings will be held at 20, Hanover-square, W., and will commence at 8.30 P.M. The first meeting of the Hunterian Society will be held at the London Institution, Finsbury-circus, E.C., on Wednesday, Oct. 12th, at 8.30 P.M., when the first Hunterian Society lecture for the Session 1892–93 will be delivered by Dr. Robert Barnes on Some Observations on Absorption in relation to Physiology, Pathology and Therapeutics.

ALLEGED INSANITARY HOUSES.

THE daily journals have done good service in calling attention to the need for remedy of insanitary conditions that are to be found in houses occupied by poor persons. But in these cases everything depends upon accuracy of statement, and we fear that unless this habit of accuracy is cultivated a tendency to disregard the utterances of the press will be eventually encouraged. At a meeting of the vestry of St. James's last week a statement recently made by an evening contemporary was discussed. This statement was to the effect that in a number of streets in that district "almost every house was full of dirty, stinking, home workshops, whose doors were tight-locked against a stranger." We quote from a report of these proceedings in *The Times*. The clerk had written to the editor of the evening journal and asked for a list of the premises referred to. A reply was received mentioning a considerable area, and hinting that certain property alleged to be owned by a member of the vestry was so notoriously overcrowded and deficient in sanitary accommodation as to lead to the belief that it must have come under the notice of the officials. Further requests for detailed information met with no greater success, and finally the medical officer of health said the charges were extremely vague and would involve him in a great amount of investigation to answer specifically. All he could say was that the matter was very grossly exaggerated in the article referred to and that there was substantially no truth in it.

If there is any foundation for the statements made in the evening journal to which we refer there ought to have been no difficulty in supplying the sanitary authority with the information necessary to enable it to remedy the evils complained of. General charges of the sort made tend only to discourage sanitary administration, and certainly tend to minimise the influence of the press. If this should result it would be greatly to be deplored, for it is chiefly owing to the influence of the press that so much good work is being done at the present time.

THE SCOTCH MEDICAL SCHOOLS.

THE colleges now remaining to be opened are those of Edinburgh, Aberdeen, Dundee and Glasgow. Aberdeen University will commence its winter session on Oct. 11th and Edinburgh College and University College, Dundee, will open on the same date. On the 18th the winter session in the faculty of medicine will be commenced at Glasgow University, when an inaugural address will be delivered by Professor Cleland, M.D., on "Anatomy: its Place in Education"; the students of Anderson's College will listen to an address by Dr. W. L. Reid and Professor McVail will deliver the introductory address at St. Mungo's College; whilst the lecturer on Gynæcology at the Western Medical School will open the session with an address on "Early Ovarian and Tubal Disease."

MEDICAL OFFICERS OF HEALTH.

AN evening contemporary has recently published letters from correspondents bearing upon the question whether medical officers of health should devote the whole of their time to their official duties. It is urged that the time has come when this system should be everywhere adopted, and to this claim we see no objection. But if the whole of the time of capable and reliable men is wanted by the public, some effort must be made to induce sanitary authorities to offer adequate remuneration. The present is not a time favourable to the full development of an efficient health service. The salaries which are often proposed bear no relation to the responsibilities and anxieties attaching to the office, and the disposition to abolish pensions renders the appointment of much less value than hitherto. When, in addition to this, the authorities further propose that their officers shall retire at a fixed age the candidate is led to think of what opportunity he will have of saving money wherewith to provide for the later years of his life. If the officer is allowed to keep in touch with other work he may look to this to provide for him when he leaves the public service. There is therefore something to be said against the whole-time system, which can only be generally adopted when the public is prepared to remunerate its officers adequately.

THE VACANT CORONERSHIP OF EAST DENBIGH.

THE election to the office of Coroner for the Eastern Division of the County of Denbigh, vacant by the death of Mr. B. Heywood, will, it is announced, take place on Nov. 7th next. We understand that several applicants for the post are already in the field. On the respective claims of the candidates to fill this important and time-honoured office we do not propose to offer more than a bare opinion. Their antecedents are not for the most part sufficiently well known to us to warrant anything but a general statement, to the effect that, so far as we are aware, they are all more or less fitted to aspire to the dignity of the coronership. To this, however, we must add the reservation that in the case of most of them the want of a medical qualification is, *primâ facie*, in our view a distinct drawback. But with regard to one of the candidates, Dr. Edward Davies of Wrexham, no such hesitation on our part is either necessary or justifiable. A mere enumeration of the qualifications possessed by that gentleman will suffice to mark him out as pre-eminently worthy to obtain the suffrages of the electors in the approaching struggle. Dr. Davies has acted as deputy coroner for several months past, has lived in the principality all his life, and for over thirty years has practised his profession in Wrexham; moreover, his long experience in connexion with the coroner's court, in behalf of which he has for more than a quarter of a century conducted the post-mortem examinations, renders him peculiarly well fitted to discharge the duties of the office in question. In the interest of the inhabitants generally, we cannot but wish success to the candidature of Dr. Davies.

HEALTH MATTERS IN LEICESTER.

THE *Leicester Daily Post* discusses in a leading article several matters of interest in respect of the spread of disease. The chief of these is the disclosure by the chairman of the Sanitary Committee to the Town Council of "the ignorance or the intolerable carelessness" of practitioners in sending cases to the Fever Hospital as scarlet fever cases in which there was no scarlet fever, but measles, or even only a swollen gland. We know nothing of the details of these cases or of the justice of the charges of inaccurate diagnosis, but the charges themselves are serious enough to demand the attention of practitioners. Another point is that a local epidemic of typhoid fever has been distinctly traced by the medical officer of health to herb beer being sold in a shop where there were five cases of the disease. There has also been a "mysterious visitation of small-pox," which has not yet been satisfactorily traced.

INTESTINAL BACILLI.

THE bacilli found in the intestines have from time to time given rise to a good deal of controversy, and so far as appearances go there is every probability that the paper warfare will continue just as briskly as it has done in the past. In all the earlier literature concerning the bacillus coli communis this organism was spoken of as a simple saprophyte, but certain observers who maintained that it was not identical with Eberth's typhoid bacillus eventually suggested that it might be a cause of cholera nostras. Latterly a number of observers, amongst whom must now be reckoned Dr. Gabriel Vallet,[1] have come to the conclusion that these two organisms are really identical. Of course there are certain facts which tend to strongly support this thesis, although it must be confessed that, for the present at any rate, it is better to keep an open mind on the subject. However, the following facts may be cited in favour of Dr. Vallet's position. At first a considerable number of observations on typhogenous water were made, as a result of which it was stated that the typhoid bacillus was invariably found; but since investigators have come to recognise certain distinctive characters in the two organisms the bacillus coli communis is now described as occurring in typhogenous water much more frequently than is Eberth's typhoid bacillus; then, again, from careful bacteriological examination of typhoid stools it has been ascertained that the bacillus coli communis is found therein much more frequently than the typhoid bacillus itself, which is, indeed, comparatively rarely met with. After a careful morphological and biological investigation, taking the above facts into consideration, Dr. Vallet has come to the conclusion that the bacillus coli communis of Escherich is nothing more than a transition stage of Eberth's typhoid bacillus, and that there are, in fact, just as Loeffler, Roux, Yersin, Klein and others have described in diphtheria, two forms of the same organism—a pathogenic and a non-pathogenic. Some of the distinctive characters are most

[1] Le Bacillus Coli Communis dans ses Rapports avec le Bacille d'Eberth et l'Etiologie de la Fièvre Typhoïde.

important and those who hold that organisms may becom markedly modified as they grow under very different conditions will find considerable evidence in support of their position in these observations. The bacillus coli communis may be cultivated, and will remain for a considerable length of time in liquid taken from privies and water-closets and then sterilised; whilst the typhoid bacillus, when placed under similar conditions, not only ceases to multiply, but dies out—in from one to two weeks. Acting on the idea suggested by this experiment, Dr. Vallet found that when the bacillus coli communis is cultivated in fæcal solutions it becomes much more virulent, sometimes even more so than the ordinary typhoid bacillus; and he points out, therefore, how important it is to prevent fermentation of fæcal matter. He maintains, indeed, that Murchison was perfectly correct in his statement that typhoid fever can arise quite independently of an anterior cause, by fermentation of this fæcal matter. He also insists upon the important part played by malnutrition and exhaustion in the etiology of typhoid fever, holding, as he does, that it is only when the tissues are exhausted and the secreting surfaces are acting irregularly or imperfectly that any of these forms of the bacillus can exert any pathogenic effect. The article is exceedingly interesting and some forcible arguments are advanced, but we cannot agree that Dr. Vallet has by any means proved his position to be invulnerable.

THE ROYAL COMMISSION ON WATER-SUPPLY.

THE Royal Commission appointed to consider the question of the London water-supply resumed their sittings yesterday, Lord Balfour of Burleigh presiding. The first witness, Mr. Thomas Hawksley, C.E., stated that he estimated that over the Thames area of 3736 miles the rainfall would be six inches in the driest year, and that would give an average of 887,000,000 gallons; that was the quantity that might be obtained at the end of fifty years, and taking 500,000,000 from the Thames area, that would mean about twenty-five gallons per head per day, as all the supply from the Thames that the water companies could reckon upon. His experience was that not more than twenty gallons per head per day was used for domestic and ordinary trade purposes. At that rate the supply would carry them over twenty-five years. Questioned as to whether cholera is not occasioned by the water-supply, the witness said it was not, but added that it could be communicated where the water was highly polluted, and had no chance of being oxidised, as in the case of the Golden-square wells. Cholera, he pointed out, always goes up rivers, and not down them, because oxidation is more rapid where the river broadens than where it is narrow. Sir Frederick Bramwell, who followed, said he thought the consumption per head per day could be reduced to twenty-six gallons, instead of, as at present, thirty-two gallons. There was a great deal of water that now ran to waste without the knowledge of the people, who would not object to the waste being saved. After hearing the evidence of Mr. Peregrine Birch, who stated that in his opinion 175,000,000 gallons, in addition to the quantities of water now taken from the Thames, might be taken without injury to the river, the Commission adjourned.

FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—An important proposal has been made by the professorial Senate of the Medical Faculty which, if sanctioned by the Government, will alter the examinations considerably in the direction of diminishing the Mineralogy, Zoology and Botany required and increasing the Pathology and Therapeutics, besides which some one practical subject, such as Dermatology or Laryngology, will have to be taken up. It is also proposed that no degrees from Vienna and other Austrian universities shall entitle the holder to practise in Hungary unless he shall have spent five semesters at a Hungarian university.

Clausenburg.—Dr. Szabó of Buda-Pesth has been appointed to the chair of Obstetrics and Gynæcology.

Königsberg.—Dr. Kuhnt, professor at Jena, has been appointed to the chair of Ophthalmology in succession to Professor von Hippel.

Naples.—Dr. G. Melle has been recognised as *privat-docent* in Dermatology and Syphilography.

Kazan.—Dr. L. O. Darshevich of Moscow has been appointed to the Professorship of Nervous Diseases.

St. Petersburg.—Military Medical Academy: Dr. N. V. Sokoloff, formerly Professor of Physiological Chemistry, has obtained the sanction of the Professorial "Conference" to recommence lecturing in the capacity of *privat-docent*.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Poincaré, Professor of Hygiene in the Nancy Medical Faculty.—Dr. Tracon, Professeur Agrégé in the Medical Faculty of Lille.—Dr. A. Kruse, *privat-docent* in General Pathology and Morbid Anatomy in the University of Greifswald.—Dr. John J. Reese, Professor of Forensic Medicine and Toxicology in the University of Pennsylvania.—Privy Councillor Dr. Steinthal, the *doyen* of the Berlin physicians and a well-known philanthropist, died on the 2nd inst. at the patriarchal age of ninety-four years.

BARON LÉON DE LENVAL of Nice offers a prize of 3000 fr. to the inventor of the best application of the principles of the microphone in the construction of a portable apparatus for the improvement of hearing in deaf patients. Instruments for competition should be sent to Professor Adam Politzer or Professor Victor V. Lang, Vienna, before Dec. 31st, 1892. The prize will be awarded at the Fifth International Otological Congress to be held at Florence in September, 1893. If no instrument is judged worthy of the prize, the jury reserve the right of announcing another competition, unless Baron de Lenval decides to otherwise dispose of the prize. The members of the jury are:—Professor Adam Politzer (president) and Professor Victor V. Lang, of Vienna; Dr. Benni, Warsaw; Dr. Gellé, Paris; Professor Urban Pritchard, London; Professor St. John Roosa, New York; Professor Grazzi, Florence.

PRELIMINARY to the improved water-supply of Florence, shortly to become a *fait accompli*, there was opened on the 2nd inst. in the neighbouring San Casciano a magnificent service of *aqua potabile*. The works, designed and carried to completion by the engineer, Dino Ugoccioni, were greatly admired by the experts invited to witness the ceremony, while the water itself, from a pure and abundant source, satisfied every test applied to it.

THE provincial medical officers in Denmark are evincing grave dissatisfaction with their position, their work being exceedingly heavy and their salaries most inadequate. They are beginning to refuse to continue to act, and the medical press urges them on and expresses hopes that no other medical men will consent to accept appointments until the pay per visit is materially improved.

DR. PAOLO FIORDISPINI, late director of the Manicomio of the Santo Spirito in Rome, of whose life and labours we recently gave some account, was, on the 30th ult., interred in the Church of S. Antonino de' Portoghesi (the National Church of the Portuguese) in presence of a large assemblage of the profession and of other learned bodies. The leading citizens were also represented.

OUR Special Correspondent telegraphs from Sydney, New South Wales, that the Medical Congress bein held in that city during the week has been a complete success. More than 600 members attended the meetings, and over 160 papers on various medical subjects have been announced.

ON Tuesday the Marchioness of Lorne, accompanied by Prince and Princess Henry of Battenberg, pened an extension of the Aberdeen Infirmary. The estimated cost of the extension will be about £30,000.

THE annual dinner of past and present students of Charing-cross Hospital will be held on Oct. 21st at the Holborn Restaurant at 6.30 for 7 P.M. Tickets (5*s.* 6*d.* each) may be obtained from Mr. Robert D. Muir.

SIR WILLIAM SAVORY is announced to deliver the opening address of the North London Medical Society in the Clinical Theatre of the Great Northern Hospital on Thursday, Oct. 20th, at 8.30 P.M.

OPENING OF THE MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL.

THE annual dinner of old students took place in the great hall of the hospital on Monday, Oct. 3rd. The chair was taken by Dr. W. J. Russell, F.R.S., Lecturer on Chemistry to the hospital. Among those present were: Sir James Paget, Bart., Sir Frederick Abel, Sir Richard Quain, Bart., Sir William Savory, Bart., Sir George Humphry, Mr. Bryant, Dr. Clifford Allbutt, Regius Professor of Physic in the University of Cambridge, and most of the members of the medical and surgical staff. Over 100 old students were present. After the loyal toasts had been duly honoured Mr. Howard Marsh gave "The Army, Navy and Reserve Forces," for which Messrs. Strickland, Jones and D'Arcy Power responded. Sir George Humphry responded for "The Old Students." The health of the recently elected treasuerr of the hospital, Sir Trevor Lawrence, was given by Sir William Savory. The health of "The Visitors" was proposed by Sir James Paget, and to this Dr. Clifford Allbutt and Sir Richard Quain responded. After the healths of the chairman and the secretary, Dr. Hensley, had been heartily drunk, the party adjourned to the library, and a most pleasant reunion of old students was brought to a close.

KING'S COLLEGE HOSPITAL.

The annual dinner of the old students of King's College Hospital was held on Monday last at Limmer's Hotel, Professor I. Burney Yeo occupying the chair. This dinner, which now replaces the former inaugural address, attracted a very large gathering of old students and friends, eighty-five having notified their desire to be present, and although at the last moment sundry inevitable telegrams of regret were received, the attendance was large and the proceedings enthusiastic. Amongst those who spoke were the following: Professor Burney Yeo, Colonel Mackinnon, who responded to the toast of "The Army and Navy"; Rev. Dr. Wace, principal of King's College and chairman of the hospital committee of management; Professor William Rose, who proposed "Country Friends," for whom Dr. Allfrey of St. Leonards replied; Dr. Fenn of Colchester, who proposed the toast of "Town Friends," responded to by Mr. Thomas Bond of the Westminster Hospital. Professor A. B. Duffin, Mr. Richard Twining, Mr. T. H. Cheater of Burford, Mr. J. H. Salter of Kelvedon and Dr. Tirard also spoke. As evidence of the interest shown in these gatherings it was mentioned that one country friend had that day travelled over 200 miles to be present at the dinner.

ST. THOMAS'S HOSPITAL.

At 4 o'clock on Monday, Oct. 3rd, the annual prize distribution was held in the governors' hall, Mr. Wainwright, treasurer of the hospital, in the chair. After a few preliminary words the chairman introduced Sir John Lubbock, who then gave the prizes and certificates of honour. The prize medals were then presented: The Mead medal for Practical Medicine to Mr. A. R. O. Milton; the Cheselden medal for Surgery to Mr. W. G. Sutcliffe; the Sully medal and prize for excellence of Surgical Reports to Mr. W. B. Winston; and the treasurer's gold medal for General Proficiency and Good Conduct to Mr. E. Smith. The Dean of the school then made a few remarks on the present condition of the school, changes in the staff and alterations in the building. Sir John Lubbock then gave his address.

A vote of thanks to Sir John Lubbock for his address was afterwards proposed by Sir H. Doulton and seconded by the treasurer. Tea and coffee were provided in the committee-room for the governors and their friends; light refreshments were also provided in the library. Many of the visitors availed themselves of the opportunity to visit the hospital and medical school. In the evening the annual dinner was held in the Whitehall Rooms of the Hôtel Métropole, and there was a most successful reunion of past and present students of the hospital, about 160 being present. The chair was taken by Dr. Bristowe, F.R.S., in the unavoidable absence of Mr. Henry Laver, J.P., of Colchester. After dinner the usual loyal toasts were drunk, and then Dr. Bristowe proposed "St. Thomas's Hospital," and alluded to the cordial relations existing between the governors and the medical staff. The treasurer of the hospital, Mr. J. G. Wainwright, replied. Dr. Ord proposed "The Visitors," and Mr. Phillips and Mr. F. Walker responded on their behalf. "The Medical School," proposed by Mr. Wainwright, was responded to by the Dean, Mr. G. H. Makins. Dr. Payne proposed "The Chairman," who responded. Mr. MacKellar proposed "The Old Students," a toast acknowledged by Dr. Wyman and Dr. Nichol. "The Hon. Secretaries" was proposed by Dr. Rolla Rouse, and Dr. Turney and Mr. Stahl briefly replied. A pleasant feature during the dinner was the interchange of courtesies with University College Hospital, which was holding its annual dinner in another part of the building.

MIDDLESEX HOSPITAL.

The Introductory Address was delivered by Dr. Sidney Coupland in the large lecture theatre, to a crowded audience of students and their friends. At the conclusion of the address Dr. Pasteur (Secretary of the Medical School) read the Dean's statement for the past year. The prizes gained during the preceding year were then distributed by Sir Lionel S. Pilkington, Bart., one of the vice-presidents of the hospital, who brought the afternoon's ceremony to a close with a few well-chosen words of advice to his hearers. A well-attended reception was afterwards held in the dining-hall of the residential college.

In the evening an unusually large number of past and present students attended the annual dinner at the Holborn Restaurant. Dr. Wm. Duncan presided, and among the guests present were Sir Lionel Pilkington, Baron Rowland, M.D., Mr. Bell-Sedgwick, Mr. Vowles, the Rev. Hay Chapman, Mr. Wilhelm Ganz and others. The evening passed off most pleasantly, the usual speeches were enthusiastically received, and the admirable playing of Mr. Wilhelm Ganz was a feature of the musical part of the programme.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FROM the Calendar of this institution, which has just been published by the Council, it appears there are 1110 Fellows of the College (of whom 830 obtained the Fellowship by examination, 15, who were Members of twenty years' standing, were elected Fellows, and 2 are *ad eundem* Fellows), 16,771 Members, 704 Licentiates in Midwifery and 793 Licentiates in Dental Surgery. The holders of the diploma in Public Health (granted in conjunction with the Royal College of Physicians) number 126.

During the past collegiate year 687 candidates presented themselves in elementary anatomy and elementary physiology, of whom 484 passed in both subjects, 50 in elementary anatomy, 105 in elementary physiology, and 48 candidates were referred in both subjects; 89 candidates presented themselves in elementary anatomy only, 78 of whom passed; 57 presented themselves in elementary physiology, of whom only 47 passed. The examiners are appointed in conjunction

with the Royal College of Physicians. The fees received from candidates for this examination amounted to £4048 16*s.*, the examiners receiving as fees £573 15*s.* Of 753 candidates who presented themselves in chemistry, 504 passed and 249 were referred. Of 976 candidates who presented themselves in materia medica, 549 passed and 427 failed. The examiners in Chemistry and Materia Medica are elected by the Royal College of Physicians.

The examiners in Anatomy and Physiology for the Second Examination are appointed annually in conjunction with the Royal College of Physicians; they have conducted the Primary Examination under the old regulations, as well as the Second Examination of the Examining Board. 771 candidates presented themselves in anatomy and physiology, of whom 365 passed in both subjects, 152 passed in anatomy only, 64 passed in physiology only and 190 were referred in both subjects; 109 presented in anatomy only, 84 of whom passed and 25 failed; of the 178 who presented themselves in physiology only 117 passed and 61 failed. The fees received from these examinations amounted to £4291 17*s.* 6*d.*, the examiners receiving in fees £1621 5*s.*

The Board of Examiners in Anatomy and Physiology for the diploma of Fellow, consisting of nine members annually elected by the Council, held during the past year two examinations, at which 155 candidates presented themselves, of whom 64 passed and 91 were rejected. The fees received amounted to £1018 10*s.* and the fees paid to the board to £697 10*s.*

The Court of Examiners consists of ten members, elected by the Council for five years from the Fellows of the College. They conduct the Third or Final Examination in Surgery of the Examining Board, as well as the Pass or Final Examination under the old regulations, and the Pass or Final Examination for the Fellowship. During the past collegiate year the Court has held two examinations for the Fellowship and four for the Membership. At the former there were 66 candidates, 46 of whom passed, 4 being referred for one year and 16 for six months. For the Membership there were 926 candidates, of whom 532 passed and 394 were referred. The fees paid by candidates amounted to £10,104 18*s.*, and the fees paid to the Court of Examiners and the Examiners in Midwifery to £5792 11*s.* The Examiners in Medicine, under the scheme for an Examining Board in England, are elected by, and the Examiners in Midwifery in conjunction with, the Royal College of Physicians. Of the 839 candidates who presented themselves in Medicine during the year 521 passed and 318 were referred; in Midwifery, of 791 candidates 542 passed and 249 were referred.

The Board of Examiners in Dental Surgery, consisting of eight members, are elected by the Council for five years, and have held two meetings for the examination of 81 candidates, 51 of whom received their diplomas. The fees paid amounted to £535 10*s.*; of this the board received as fees £340 4*s.*

The Examiners in Public Health, appointed in conjunction with the Royal College of Physicians, have examined 58 candidates in Part I., 49 of whom passed and 9 were referred. For Part II. 52 candidates presented themselves, 40 of whom passed and obtained the diploma and 12 were referred. The fees paid by candidates amounted to £276 3*s.* and the fees to the examiners to £231.

With regard to the finances of the College, it appears that the income from all sources amounted to £39,619 10*s.* 1*d.*, the largest receipt being, as already shown, derived from the fees paid by candidates for the diplomas of the College—viz., £20,275 14*s.* 6*d.*, the next largest being from sale of stock, £11,248 14*s.*; investments, £5879 1*s.* 9*d.*; rent from chambers adjoining College, £665 3*s.* 1*d.*; incidental receipts—i.e., hire of rooms, sale of calendars, questions &c.—£540 11*s.* 4*d.*; trust funds, £251 16*s.* 11*d.*; fees retained for candidates £660 10*s.*; balance at banker's, Midsummer Day, 1891, £97 18*s.* 6*d.*

The expenses for the year amounted to £39,283 6*s.* 10*d.*, leaving a balance at Midsummer Day, 1892, of £336 3*s.* 3*d.*, the largest item being for extension of College premises—viz., £10,209 6*s.* Fees to examiners amounted to £9256 5*s.*; half of the expenses for the Examination Hall and laboratories, £5373 4*s.* 4d.; salaries, wages and pensions for officers and servants in the three departments, museum, library and office, £4927 2*s.* 2*d.*; rates, taxes and insurance absorbed the sum of £1003 9*s.* 3*d.*; extraordinary expenses, £1959 2*s.* 7*d.*; fees returned to candidates, £560 10*s.*; alterations and repairs, £676 11*s.* 9*d.*; fees to council, £289 16*s.*; law expenses, £755 16*s.* 3*d.*; purchase of books &c. for library, £662 8*s.* 11*d.*; lectures, specimens, catalogue &c., for museum department, £816 0*s.* 6*d.*; whilst under the heading of miscellaneous items, fuel, light, printing, stationery, trust funds &c., about £3000 appears to have been expended.

CHOLERA.

CURRENT NOTES, COMMENTS, AND CRITICISM.

WHILST the cholera has shown marked signs of diminution in Hamburg, and is slowly but steadily declining in Paris and St. Petersburg, it still continues very prevalent in certain provinces of Russia, and it has broken out at Buda-Pesth. It also continues to prevail to some extent in Holland, Galicia, and at Havre, Antwerp and Cracow.

At Hamburg the total number of cases during the six weeks since it first appeared amounts to 17,701, and the aggregate number of deaths up to the latest official returns is 7536. It is stated that most of the public schools either have already opened or will resume work next week. The outbreak in the Hungarian capital, Buda-Pesth, seems to have been sudden and somewhat severe, affecting especially the quarters on the left bank of the Danube. As in the case of Hamburg, the drinking water is obtained from the river. The authorities at Buda-Pesth were not without some preliminary warning of what was likely to occur. It is alleged that there was at first, when the number of seizures left no doubt of the presence of the epidemic, a great want of preparedness on the part of the municipal authorities to meet the exigencies of the case, and that this had given rise to much popular dissatisfaction and apprehension—in Vienna especially. Whether this may have been the case or not, there is no doubt that the authorities at Buda-Pesth soon set to work in the direction of providing additional hospital accommodation and sick transport. It must always be borne in mind that there is a general disposition to do as little as possible where financial considerations are involved, and to raise a great outcry when it is afterwards discovered that the penalty has to be paid for any neglect or inadequate arrangements.

The reply published by the Chief of the Foreign Affairs Department to the alleged granting of clean bills of health to vessels leaving Hamburg after the outbreak of cholera appears to be a precise and straightforward statement of facts. It supplies us with certain data in regard to the manifestations of the epidemic in that city which it may be of interest to record with reference to the complaints that have been made about the steamships *Moravia* and *Normannia*. According to the official register, the *Moravia's* certificate was issued on Aug. 16th, when there was not the slightest suspicion at Hamburg of an outbreak of cholera. Through the published statements of experts it is known that unmistakeable indications of the disease were not discovered until the 22nd of August, and it was still doubtful on the 23rd and 24th of August whether the disease was of an epidemic character. At the latter date the Senate ordered a daily report to be issued, and that the opinion of Professor Koch, who was in the city at the time, should be taken. Bills of health, which had been drawn up on the 24th but not delivered, were withheld, but that for the *Normannia*, dated the 24th, had already been delivered to the ship before the issue had been suspended.

It may also be well here to correct a very general misapprehension that prevails as to the part played by the Jewish Russian emigrants in the spread of this disease. It is the prevailing notion that cholera was conveyed by them and followed everywhere in their track. It is pointed out, however, by a correspondent, in the *St. James's Gazette* of the 5th inst., that such was not the case. As far as Germany is concerned, cholera first broke out in Hamburg, and it was not taken there through Germany by Russian Jews. The earliest cases occurred in the port of Hamburg among the labourers and sailors. The disease had been present in France long before, and in Eastern Russia and St. Petersburg some time before the occurrence of the outbreak in Hamburg. Exactly how it got there, and how the water-supply became infected, are matters still requiring the most careful and minute investigation.

We notice that, owing to the increase of cholera at Buda-Pesth, the military authorities have ordered that tea with citric acid should be supplied to the troops. We prefer the use of a sulphuric-acid-ade. The garrison has remained free from cholera. A bacteriological examination of the alleged

cases in the garrison hospital showed that they had not died of Asiatic cholera. It would seem, by the way, that different varieties of the bacillus had been detected in the course of this epidemic, and it might be interesting to refer to Dr. Cunningham's researches published in Part VI. of the Scientific Memoirs of the Army Medical Officers of India. This officer states, we believe, that he has discovered ten different varieties of the bacillus. If this be so, it will tend to widen our knowledge of the different forms assumed by cholera, that is, on the assumption that Koch's bacillus be *the* specific cause of that disease.

It seems to become clearer every day that a further extension and development or revitalisation of this epidemic disease may be anticipated during the summer and autumn of next year, and practically the lesson which has to be driven home is, that we should during the interval see to our water-supplies, drainage and general cleanliness, and to the organisation of our methods of procedure should the epidemic unhappily obtain any foothold hereafter in this country. It has not done so yet, and there is no reason why it necessarily should do so. Still, whatever we may do now to protect us from cholera is not thrown away—it is equally useful against other diseases. In view of the wisdom and foresight so far exhibited by the medical department of the Local Government Board, we think the country may feel satisfied that these things will not be lost sight of, and it only remains for the people to render all the aid they can.

A suspicious case of cholera is reported from St. Thomas's Hospital, to which institution a patient was admitted on Sunday morning last, Oct. 2nd. It appears that on Friday, Sept. 30th, the patient was taken ill with profuse diarrhœa, the stools having the rice water appearance so characteristic of the malady, and suffering from cramps in the limbs and from violent thirst. After having had eight pints of saline solution injected into the veins improvement was apparent, and this was maintained for twenty-four hours, but a relapse subsequently supervened. The patient now is slightly better but still collapsed. It has not been possible to trace any source of the infection and the cholera bacillus has not been isolated. The case is under the care of Dr. Ord.

THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

THE CONFLICT OF THEORIES.—THE ICE SUPPLY.—THE SUBURBAN CESSPOOLS.

NOTWITHSTANDING the slight increase in the number of deaths due to cholera, which followed and perhaps was caused by the *fête* of Sept. 22nd, the epidemic seems decidedly on the wane. As already mentioned, there was an average daily death-rate of twenty-four in Paris during the first twelve days of September. It will be found, in all probability, that this average fell to about ten per day towards the end of the month. Still it is impossible to feel any sense of security. The fact that the last cholera epidemic did not commence until the month of November is a very disquieting consideration. Though the present outbreak of the disease seems to be gradually dying out, it is like a smouldering fire which may blaze forth again at any moment. At Hamburg it can be said that the cholera has pretty well exhausted itself, while in Paris a pessimist might argue that we have only as yet seen the forerunners of the epidemic. Then there is another grave consideration. At first it seemed very probable that the drinking of the Seine water was the only cause or vehicle of cholera. Up to the middle of August it was the suburban population who drank Seine water after it had passed through Paris who were the chief sufferers. The cases that occurred in Paris and in districts where other than Seine water was drunk were not numerous. It was therefore easy to suppose that the victims had gone for business or pleasure to the dangerous suburbs, and while there had drunk the Seine water, or had been in personal contact with a case of cholera. This theory engendered a sense of false security. It seemed simply necessary to avoid drinking the Seine water or else to boil it very carefully. But in September the tables were turned. It was Paris, where no Seine water was consumed, that suffered most and the Seine water-drinking suburbs least. In September there were twice as many deaths in Paris as in the suburbs. Evidently a large proportion of these deaths within Paris was due to other causes than the drinking of the Seine water. In the suburb of Aubervilliers, where so many cases of cholera had occurred, an artesian well had been dug, and the inhabitants were offered other than Seine water to drink. Simultaneously with the opening of this new water-supply the prevalence of cholera at Aubervilliers notably decreased. Could there be a better confirmation of the Seine-water theory? But if one looks more closely into the matter the theoretical result of the experiment is not so evident. The commune of Aubervilliers spreads over a large district, and a very considerable proportion of the cases of cholera occurred at a distance of more than a mile from this new well, close to the walls of Paris, near the Pantin gate. On the Route d'Allemagne, beyond the Porte de Pantin, there is a numerous, poor, industrious population which has greatly suffered from cholera. Speaking to a poor woman in this district, one of the medical inspectors expressed the hope that she carefully boiled the Seine water which she used for drinking purposes. The answer given was a striking illustration of the true state of affairs. The woman was indignant at the question. She looked with commiseration upon the well-dressed medical inspector, who talked about sterilisation and microbes; he was evidently a very ignorant person; how could the Government employ such impracticable theorists? "Why," she exclaimed, with simple eloquence, "you do not know the price of fuel. I cannot afford enough fuel to cook my dinner properly, how am I to pay for fuel to boil drinking water?" Nor can the people living about here find, in their poverty, the time to walk a long distance to fetch a jug of pure water from the new supply organised by the Aubervilliers municipality. The people near the Pantin gate therefore continued to drink bad water, they rarely, if ever, boiled this water; and though the prevalence of cholera has decreased in this neighbourhood, the improvement is in no wise due to the new supply of water provided at Aubervilliers. Thus cholera is found to be decreasing where the Seine water is still drunk and increasing where it is not drunk.

These facts do not imply that the Seine water is a safe beverage, but they do indicate that there are other causes at work besides this poisoned water-supply. One at least of these other causes has been discovered, though very little has been said about it. A great many samples of ice have been submitted to analysis. The public were told to avoid iced drinks &c.; they have not, however, been told why ice is dangerous. The reason, I was told, was that it would cause too much alarm if mentioned in Parisian journals, but it would not have the same effect if recorded in a foreign technical paper. The truth is that on examining the ice sold in Paris some samples had been found to contain the comma bacillus. This fact, if generally known, might cause an unjustifiable panic. It would tend to empty the cafés of their usual customers, iced water being generally mixed with the drinks so largely consumed before meals. It is not because a few samples of ice were composed of contaminated water that all ice is unsafe. More important by far than this slight risk is the question as to how the comma bacillus could possibly have been found in the ice. A part of the ice sold in Paris is gathered from ponds &c. in the outskirts of the town. These are stripped of their ice during the winter months; and as the water is usually stagnant and often foul the utilisation of such ice was on general grounds declared dangerous. If, apart from such risks, the specific germ of cholera is in the ice, and if this be the ice that has been collected from ponds during the winter, then does not this show that the germ of cholera was here long before the month of April? Indeed, it is now very generally admitted that in all probability there were cases of cholera some time before April 5th, the date of the first officially recognised case at Nanterre. If the Seine water was the cause of the epidemic in the prison of Nanterre, somebody or something must have first contaminated the Seine water. The presence of the comma bacillus in ice is a suggestive indication of this previous contamination. This is a clue that should be carefully followed up.

A great deal is now being said about the system of drainage in Paris. The cholera epidemic has been seized upon as a pretext to advocate the continuation of the cesspool system. The Seine, we are told, is contaminated because some houses drain directly into the sewers, and the sewers have their outfall in the river. Already, however, one-third of the sewage is utilised for the irrigation of the market gardens on the plain of Gennevilliers. In time it is proposed to throw the other two-thirds on the plains of

Achères and of Méry. Then Paris will no longer contaminate the Seine. In the department of the Seine et Oise, where these new sewer farms are to be created, the landowners and others are up in arms against the scheme. The subject has become a rallying cry at all local elections, and the rival political parties vie with each other in the zeal they display in resisting the project. Thus, as soon as the National Assembly meets, the Radical Deputy of the district, M. Hubbard, is to interrogate the Government in a manner hostile to the drainage scheme. The Moderate or Right Centre Deputy of the same department, not to be outdone, proposes also to interrogate the Government in the same sense. Fortunately M. Loubet, the Premier and Minister of the Interior, is a very competent authority on this subject; and M. Emile Trélat, Deputy for the fifth arrondissement of Paris, has a third question on the subject, but framed in a style which, while friendly to the project, will give the Prime Minister an opportunity of defending the drainage scheme which is now being gradually carried out.

Of course everybody is agreed that the sewage of Paris should not fall into the Seine. Most persons also think that the proposed extension of the main sewer from Paris to the sea is impracticable. There consequently remain only two solutions of the problem. The one is to keep the sewers pure from soil and to allow only rain water and slop water to enter. This is the old system, and involves, of course, the continuance of the cesspool nuisance. The other solution of the difficulty known as *tout à l'égout*, and advocated with so much skill by the late M. Durand Claye, consists in the introduction of the English method of water carriage drainage, with properly ventilated and flushed closets, and the utilisation of the sewage resulting at Achères and elsewhere, as is already in part done at Gennevilliers. But in carrying out this project the numerous industries that now flourish on the emptying of cesspools and the manufacture of human guano would come to a natural end. Hence the resistance against the irrigation scheme is not altogether theoretical; there are large financial interests at stake, and it is not unreasonable to suppose that financial support has been forthcoming in the present agitation in favour of maintaining the cesspool system. It is argued that what now goes into cesspools contaminates the river if thrown into the water and contaminates the soil if used for agricultural purposes; that cholera will become endemic in the neighbourhood of Paris if these sewage farms are allowed and epidemics will break out afresh at every dry season. Therefore houses should drain into cesspools, the contents of the cesspools should be removed, treated chemically, sterilised in the process and converted into innocuous manure. If, however, the contents of the cesspools are so dangerous, and must be so carefully removed and treated by chemical process, and all this, not for financial advantages, but for the preservation of public health, how is it that more care is not shown in the emptying of cesspools in the neighbourhood of Paris?

This brings me back to the probable causes of the present cholera epidemic. In Paris the authorities are opposed to the cesspool system, but are determined while it lasts that it shall be carried out in the best possible manner. For this purpose there are forty inspectors appointed by the town. One of these inspectors is present every time a cesspool is emptied. He calculates how many cubic metres of material is withdrawn from the cesspool, keeps a record of where it is to be taken, inspects the cesspool, sees that it is water-tight and ventilated. Wherever a case of cholera has occurred the cesspool has at once been emptied, even though it may have been cleaned out only a few days previously. Disinfectants are thrown in. The municipal inspector often enters the cesspools to examine their walls and see that there is no leakage. It is a notable fact that none of these men have been ill, in spite of their apparently dangerous occupation. As a result of this active surveillance it is known that last year, for instance, 1,172,916 cubic metres of matter were extracted from the Paris cesspools. Now follows an important calculation which may have a direct bearing upon the cholera epidemic. If the amount of soil taken from the cesspools or *tinnettes filtres* be divided by the 365 days of the year a total of 3200 cubic metres of night soil per day is found. If this be again divided by the population of Paris the answer is almost correct theoretically—namely, 1 kilo 260 grammes per inhabitant; but one in twenty of the population do not drain into cesspools or pails, therefore there is a margin of difference between practice and theory. The important fact is, however, fully demonstrated—namely, that the soil taken out of the Paris cesspools corresponds in amount with the number of inhabitants.

If, on the other hand, one proceeds from Paris to the suburbs—the very suburbs where cholera has for so long prevailed—a totally different result is found. The population of the eight cantons which constitute the department of the Seine amounts to 616,539. Calculating on the basis of 1 kilo 260 grammes per person, there should be a daily yield of 778 cubic metres or 283,970 cubic metres of night soil per annum. The entries made at the depôts, where the night soil is brought from the suburbs, only record a total of 147,490 cubic metres of soil received in the course of the year. Thus for the suburbs of Paris there are 136,480 cubic metres of soil unaccounted for. What has become of this enormous quantity of foul matter?—and the quantity is only estimated on the census return of the population. No account is taken of the large number of Parisians and others who visit these suburbs on Sundays and holidays. At St. Maur, on the Marne, for instance, it sometimes happens on a fine Sunday that there are 100,000 persons there, though the stationary population is about 18,000. The explanation is simple. The cesspools are not properly emptied. The distances are so great that it is not worth while sending extra carts when there are not sufficient to fully empty the cesspool. Therefore, a certain portion of the contents of the cesspools is emptied into the sewers, thrown direct into the river if the river is close at hand, or scattered on the soil round about. In any case, and whatever is done, the fact remains that annually more than 136,000 cubic metres of the foul soil extracted from cesspools are surreptitiously disposed of, and this in a manner not likely to conduce to public health. The advocates of the cesspool system say it is dangerous to drain into sewers or to throw crude sewage on to the soil; what, however, has been done annually with these 136,000 cubic metres of night soil? The fresh unfermented soil which daily flows into the sewers, where the *tout à l'égout* is practised, is not to be compared for a moment with the concentration of foulness held fermenting for months in a cesspool. If the contents of cesspools have been thrown directly into small local village sewers, have been thrown directly into the river or on the ground, and if, to economise the trouble of emptying, some of these cesspools have been allowed to leak, then it is not surprising that the suburbs of Paris, where such abominations are the daily practice, were the first to suffer from cholera. Nor need the Seine be contaminated to produce the epidemic. It is easy to understand that the ice from ponds should have been contaminated long before any suspicion was cast on the Seine. There are wells also in the suburbs of Paris. It is bad enough that these wells should be near cesspools, but if 136,000 cubic metres of the contents of these cesspools are scattered about, the cesspools need not leak for the wells to be poisoned. It must be borne in mind that when the epidemic broke out at the Nanterre prison the Seine water, which the prisoners drank, was examined and found to contain 39,000 microbes to the cubic centimetre, but no pathogenic microbe was recognised. The cesspools then, rather than the Seine water, may have been the principal cause of the outbreak in the suburbs of Paris. In any case, a very strict inquiry should be instituted to ascertain what has become of the missing 136,000 cubic metres of soil from the cesspools in the suburbs of Paris. It would be curious indeed, though not improbable, if it could be shown to those who advocate the continuance of the cesspool system that it was precisely the contents of the suburban cesspools which contaminated the ice, the well water, and perhaps the Seine, which became the principal vehicle that spread the cholera.

With respect to the outbreak of cholera in the suburbs of Paris, and whatever may have been its cause or origin, there is one aspect of the question which seems very inconsistent. Why were the patients suffering from cholera brought into Paris? Belgians, fugitives from France, introduced cholera at Jumet, near Charleroi. Another epidemic has broken out at Pâturage, near Mons. When I was at Jumet the brickmakers, who had fled from the neighbourhood of Paris because of the cholera, informed me that a considerable number of their fellow countrymen lived near Mons, and had also returned home because of the epidemic. It is, therefore, probable that the cases of cholera at Pâturages, Wasmes &c. have been brought there by fugitives, and that we have near Mons a repetition of what occurred at Jumet, Roux, and other places in the neighbourhood of Charleroi. At Antwerp we have seen that it was the *St. Paul* from Havre which brought the cholera. The cholera in Belgium is imported from France, yet the French take precautions against this their own cholera, so to speak. The cholera by crossing the Belgian frontier did not mate-

rially change in its characteristics, yet travellers from Belgium are subjected to medical examination and surveillance when they are in a perfect state of health. On the other hand, persons dying from cholera are transported from the suburbs of Paris, where there are open fields, plenty of open air and space for isolation, and brought into crowded parts of the town of Paris. For instance, the Hôpital Beaujon, in the Faubourg St. Honoré, has received a considerable number of cholera cases. It is surrounded by hotels and dwellings on all sides. The dead from the hospital are brought out into the Rue de Courcelles in the midst of a fashionable neighbourhood. Other hospitals are in poverty-stricken districts, and there the danger is greater on account of the dirt, overcrowding and misery that exist in these localities. Many of these hospitals are old, badly-built structures, erected at a time when the knowledge of sanitation was limited. The attendants on the cholera patients frequented the neighbourhood, went into shops, sat at cafés, &c. Had these nurses and other persons taken all the necessary antiseptic precautions? A circular was issued at the commencement of July indicating what precautions should be taken, but the Paris hospitals had been receiving patients suffering from cholera ever since the month of April. The communes outside Paris have no hospitals, with the exception of the commune of St. Denis. They have consequently a treaty with the municipality of Paris according to which they pay a certain sum for all patients sent to the Paris hospitals. This is a reasonable arrangement, though from a sanitary point of view the reverse would be preferable. Instead of throwing into the crowded streets of Paris all the patients from the suburbs, it would be better if the hospitals were outside Paris and all the patients were sent to the less crowded suburbs. The bringing of small-pox and scarlet fever patients into Paris from the suburbs is a serious grievance; but at present people are only thinking of cholera, though less infectious. Surely it would have been more practical and more logical instead of taking precautions against the French cases of cholera that have crossed the Belgian frontier to have sent ambulance tents to the suburbs of Paris and have treated the cases in the suburbs where they occurred. Now that everyone is inquiring why the cholera has spread in Paris those who still believe the disease to be infectious will certainly blame the hospitals that received so many suburban cases. Even if the cholera is only contagious it is probable that the antiseptic precautions were not very rigorously applied during the first month or so.

The circular issued on this subject, and which is dated July, states that all persons entering the cholera wards must wear a blouse, fitting tight round the wrist and neck, which must be removed on leaving the cholera wards and disinfected at least once in twenty-four hours. All the attendants, nurses &c. must wash their hands and carefully clean their nails in a solution of sublimate before eating, and must take their meals apart from all the other persons employed in the hospital. Within the last week it has been further ordered that goloshes must be worn in the cholera wards, taken off and washed in sublimate at the door on leaving the wards. These are good precautions; but most persons would have preferred the establishment of tents, barracks or cottage hospitals in the affected suburbs.

The number of cholera patients treated in the Paris hospitals was 57 on Aug. 1st, 108 on Aug. 25th and on Sept. 5th there were 329. This was the maximum. On Oct. 1st there were 187 cholera patients in the Paris hospitals, and out of this number 39 came from the outlying suburbs. Looking over the list of these patients, without making any calculation but simply judging by a glance, it is impossible not to be impressed by the great number of washerwomen who have contracted the disease. The returns are as yet very incomplete, and in many cases the occupation of the patient is not mentioned; nevertheless, it can even now be said that, as compared with other occupations, washerwomen are proportionately the greatest sufferers. This is an important and instructive fact, and fully confirms the necessity of disinfecting all soiled linen. It also shows that a great deal of cholera has escaped the notice of the authorities. If the regulations were invariably applied washerwomen would be especially subject to contamination, for all the soiled linen would be disinfected. Of two things, one, either cases of cholera have been concealed and linen sent to the wash without proper precautions, or else linen can be soiled in such a manner as to convey cholera without the wearer of the linen being himself aware that he is suffering from this disease. I also noticed in the list of patients a considerable number of domestic servants, and it occurred to me, just as a passing suggestion, that the cleaning of boots is perhaps not altogether a safe occupation in times of cholera epidemic. A certain number of persons have been suddenly attacked in the open street. Patients have been picked up after vomiting on the pavement and conveyed to the hospital. Other persons who enter rooms where there are cholera patients tread on the dejections and then walk out into the streets. The wearing of goloshes in hospital wards seems, therefore, a justifiable precaution. It will, at all events, be most useful to carefully record and study the professions and occupations of the persons who suffer from cholera.

A VISIT TO THE CHOLERA WARDS AT THE HÔPITAL NECKER.

Our Paris correspondent writes:—

"A few days ago I spent an instructive hour amongst the cholera patients now under treatment in a special block of buildings situated in the grounds of the Necker Hospital. This service is directed by Professor Peter, who, by the way, is to occupy the chair at the approaching dinner of the Continental Anglo-American Medical Society, and I am bound to testify to the air of comfort reigning in the two wards of which the service is composed and to the devotion and cheerfulness of the very polite *personnel*. I found that twenty patients were actually under treatment, and I was informed that five fresh cases had been admitted during the last twenty-four hours, and that three had died during the same interval of time. The first case was admitted on June 7th, and since then 152 persons had been admitted. Of these fifty (about a third) had died. None of the *personnel* had been attacked by the disease. It was curious to see in both wards—and very clean and airy they were, too—sufferers of both sexes in adjacent beds. Almost all were doing well. One man only presented the ghastly *facies* peculiar to the disease. I refer more particularly to the sunken orbits, and his voice was still broken. Another man was vomiting. In the ward devoted to convalescents the occupants, the female portion of which was considerably more aged than the male, were busily engaged in discussing with evident relish in most cases a meat lunch. The temperature of all the patients is taken regularly in the rectum. The lowest observed during the present epidemic was 78·8° F. (26° C.); after the death of the patient the temperature reached 39° C. (103° F.). Before I refer to the mode of treatment pursued at Necker I may mention that one of the nurses, who had served in cholera wards during the outbreak of 1884, told me that at that time the patients were invariably given an emetic as a preliminary to other therapeutical measures. The treatment actually followed is as follows:—A patient admitted during the stage of collapse is at once vigorously rubbed with turpentine, and hypodermic injections of caffeine and ether are given. The sufferer is then placed in a mustard bath at from 36° C. to 38° C., and kept in for about a quarter of an hour. Replaced in bed, a Chapman's spinal ice-bag is adjusted along the vertebral column. Directly the power of swallowing is regained a mixture composed of lactic acid, syrup and water is given and presevered with while the stools, which are regularly tested with litmus-paper, yield an alkaline reaction. The spinal ice-bag is renewed every two or three hours, its employment being continued until the kidneys resume their functions, this event being almost always synchronous with the cessation of the diarrhœa. A trial was being given to strychnine administered hypodermically in doses of one milligramme, but their experience of its effects have been too limited to allow them to judge of its merits. I interrogated the patients very closely on the effects of the spinal ice-bag. All, without exception, testified to the relief afforded by it, the cramps being arrested and a feeling of warmth being imparted. Asked if it appeared to exercise any beneficial influence on the vomiting and the diarrhœa, they were not so affirmative in their declarations. As a rule the patient begins to micturate in about thirty-six hours after admission, but only one woman attributed this effect to the use of the ice-bag. It must not be forgotten that ice *ad libitum* is given to suck, and that paregoric and champagne are prescribed against the diarrhœa and collapse respectively. My *confrère*, Dr. Chapman, whose enthusiasm for the ice-bag treatment is well known, assures me that better results would be obtained were the application of cold along the spine trusted to, to the exclusion of opium, which drug he condemns utterly in cholera therapeutics."

CHOLERA IN AUSTRIA.

Our Vienna correspondent writes:—

"Whilst the progress of the cholera in Galicia has so far been very much restricted, an outbreak occurred at Budapest on Oct. 2nd. The Hungarian authorities attempted to conceal the fact of the outbreak of the disease as long as possible, although the first cases of cholera arose on Sept. 26th. At this date two fatal cases with suspicious symptoms were declared at the post-mortem examination made by Professor Scheuthauer to be due to cholera Asiatica. Nevertheless the official announcement of the outbreak was kept back by the municipality until the 2nd inst., and no measures were taken to prevent the dissemination of the disease, which is said to have been imported from Hamburg by animal hides. The first cases occurred among railway-workers in a very poor suburban district. More than fifty cases of Asiatic cholera have now occurred at Budapest, according to the official report, but the real number will certainly be larger, as the disease has already appeared in different quarters of the town. The greatest negligence regarding sanitary provisions prevails in this unfortunate town, where the local authorities spend the time and the money of the taxpayers in political matters and ornamental buildings, giving but slight attention to sanitary improvements which the town sorely needs, such as a good system of sewage disposal and a good supply of drinking water. At the present time the water is taken from the Danube—a river which is being daily more and more polluted by the numerous factories erected on its banks and by the rapidly growing population of its towns. As at Hamburg the municipal authorities declared that it was impossible to be sure that the early cases were Asiatic cholera, as the bacillary cultures failed on account of the melting of the gelatine. But early in last week cultures of comma-bacilli had to be sent to Budapest from a Vienna bacteriological institute, apparently for the purpose of making comparisons. According to communications received there are no provisions made for transport and nursing a larger number of cases at the hospitals, and new barracks will have to be built. The behaviour of the municipality of Budapest this year only reproduces its attitude at the last cholera epidemic in 1886, when the public were first informed of the existence of a cholera epidemic by a letter sent by the well-known bacteriologist, Professor Babes, now at Bucharest, to the daily papers. It cannot be said that any sanitary improvements have been made during the last six years, while the population has become considerably more dense. Magnificent palaces have been erected in the central parts, but the housing of the poor remains as bad as it was before. During the epidemic of 1886, 996 cases of Asiatic cholera, 98 cases of cholera nostras and 265 cases of "cholerine" were reported, in which death occurred in 586 cases, giving a total mortality of 44·09 per cent. It must, therefore, be assumed that the cholera nostras and "cholerine" cases were really Cholera Asiatica, and it would be well to accept with caution the official cholera statistics now being published at Budapest."

SOCIETY FOR THE STUDY OF INEBRIETY.

A QUARTERLY general meeting of this Society was held on Tuesday last in the rooms of the Medical Society of London, the President, Dr. Norman Kerr, in the chair. The chairman called attention to the recent articles and correspondence in the *Daily Telegraph* and the work of the departmental committee now sitting to inquire into the best mode of dealing with inebriates as hopeful signs of the speedy enactment of compulsory legislation.

Dr. H. W. Williams, in a paper on the Urgent Need for amended Legislation for Inebriates, based this plea on three considerations—1st, as regards the inebriates themselves; 2nd, as regards their families and relatives; 3rd, as regards their neighbours and society at large. He contended that inebriety was a disease requiring medical and hygienic as well as mental and moral treatment. Many inebriates were so diseased that the efforts to control them had been paralysed, and they must have a lengthened residence in a home for a prospect of cure. As their will had been broken down compulsory seclusion was called for in their own interest, as well as for the protection of the relatives and the community from the nuisance and peril of a practical madman.

THE PUBLIC CARE OF FEVER IN 1892.

ACCORDING to the last statement of Mr. Mann to the Metropolitan Asylums Board 831 patients had been admitted to the hospitals in a fortnight, as compared with 862 in the preceding two weeks, with 370 in the corresponding week of 1891 and with 529 in the corresponding week of 1892. The notification system is developing apace and it is well to note the tendency of it. Already a third of all the cases of the notifiable diseases are admitted into the hospitals of the Board, without any inquiry as to need or the impossibility of care and isolation at home, to be housed and treated at the public expense. The following return, for which we are indebted to Mr. Mann, shows the number of cases of infectious disease notified to the Asylums Board under the Public Health (London) Act, 1891, and the number of scarlet fever, typhus fever, and enteric fever and diphtheria cases admitted into the Board's hospitals during the nine months ended Sept. 30th, 1892:—

—	Scarlet fever.	Typhus fever.	Enteric or typhoid fever.	Diphtheria.	Total.	Small-pox.	Relapsing fever.	Membranous croup.	Continued fever.	Cholera.	Erysipelas.	Puerperal fever.	Total.	Grand total.
Number of cases notified ..	17,694	17	1609	5399	24,719	344	6	390	105	45	4336	220	5446	30,165
Number of cases admittted ..	8,614	9	440	1660	10,723	—	—	—	—	—	—	—	—	—
Percentage of admissions on notifications	48·68	52·94	27·34	30·74	—	—	—	—	—	—	—	—	—	—

It is probable that anxiety with regard to the risk run by other children or business considerations induce some parents to send their children when suffering from infectious diseases to the hospitals. It is curious to notice the different degree in which such motives operate in the case of the different diseases admitted to the hospitals. Thus of scarlet fever cases 48·68 per cent. are sent to the hospitals; of typhus fever 52·94 per cent.; of enteric fever only 27·34; of diphtheria 30·74; of the admissible diseases of the notifiable group much more than a third are admitted—to speak exactly, 43·4 per cent. The returns for the last fortnight, with previous ones, go to show the early age of the majority of the patients—thus patients aged from 1 year to 15 years comprise 90 per cent. of the entire admissions between Jan. 1st and Sept. 29th. It may seem a slight burden to impose on the State the care of all this sickness, but we cannot help thinking that it has been done somewhat thoughtlessly. By a mere stroke of the pen a clause is inserted in an Act affecting hospitals originally meant for paupers, to the effect that the Managers, subject to such regulations and restrictions as the Local Government Board prescribe, may admit any person who is not a pauper, and that the expenses incurred by the Managers for the maintenance of such persons shall be paid by the boards of guardians. We do not say that this is wrong, or that there are not some strong State reasons for it; but we should like the operation of the system to be well considered, and we should be glad to learn what are the restrictions which have been prescribed by the Local Government Board. If there are none, and there are to be none, the hospitals now built will soon be altogether inadequate to the needs of London.

IDIOT ASYLUMS: THE NEED OF MORE ASYLUM ACCOMMODATION.

AT the annual meeting of the subscribers to the Royal Albert Asylum, held on the 30th ult., a favourable report was presented of the general affairs of the institution. The statement of the medical superintendent, Dr. Shuttleworth, however, contained particulars which to our readers will be of more general and collateral interest than mere financial considerations, though these are, of course, far from being unimportant. Thus we find that the average number of residents of the asylum during the past twelvemonth had been 581, whilst the aggregate number under care and training at some portion of the year was returned as 658. The number of discharges had been 35 and of deaths 18—a death-rate lower than that of the previous year, which, calculated upon the average number resident, was only 3·1 per cent. Allusion was made by Dr. Shuttleworth to the want of accommodation for infectious cases. Fortunately, no epidemic had occurred during the twelvemonth, but the medical superintendent did well to point out a want which might on some future occasion serve seriously to embarrass the officers engaged in conducting the affairs of the charity. The reading of the report of the central committee gave occasion to the Bishop of Carlisle, who presided, to offer a remark on the distinction between the words *amentia* and *dementia*—a distinction not always noted by the general public or by those who take an interest in such-like charities. The Bishop thought that the two classes of unfortunates ought, in all institutions intended for their treatment, to be separated. The speech of the day, however, was that of the Right Hon. J. T. Hibbert, M.P. This gentleman, whilst endorsing the text, so to say, of the previous speaker, suggested that it would be a good thing if the title of such charities were changed from asylums for idiots to asylums for feeble-minded people. Such a change, however, would, he thought, not be easy to effect, though the sympathies of parents would no doubt be with those who desired such an alteration to be made. Mr. Hibbert adverted to the difficulty of obtaining authentic statistics of the extent to which idiocy prevails in the United Kingdom. Families in which such afflicted ones are found are naturally desirous as much as possible to conceal the fact. The last census return—he had not yet been able to obtain the return of 1891—gave something like 41,000 as the number of the imbecile class, but that number ought, the speaker thought, to be at least doubled. Of the 41,000 imbeciles so returned 18,456 were believed to be under twenty years of age; in other words, they had that number of trainable idiots to provide for, whilst accommodation was secured for only something like 3000 patients. In this respect America was far ahead of this country, for in the United States no less than fourteen asylums existed for the purpose of housing and treating persons belonging to the afflicted class in question, some of these institutions being provided by the States in which they were established, others being founded and endowed by private beneficence or corporate grants. Surely the lack of adequate provision in our own country for the mental and physical wants of the weakminded is a reflection on the philanthropic spirit of the age.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6072 births and 3236 deaths were registered during the week ending Oct. 1st. The annual rate of mortality in these towns, which had declined in the preceding four weeks from 19·8 to 17·2 per 1000, further fell last week to 16·6. In London the rate was only 15·2 per 1000, while it averaged 17·5 in the thirty-two provincial towns. The lowest rates in these towns were 7·4 in Croydon, 10·5 in Portsmouth, 11·2 in Brighton, and 12·1 in Bristol; the highest rates were 21·4 in Manchester, 21·5 in Preston, 21·8 in Salford, 21·9 in Hull, and 23·5 in Blackburn. The 3236 deaths included 533 which were referred to the principal zymotic diseases, against numbers declining from 989 to 607 in the preceding four weeks; of these, 252 resulted from diarrhœa, 81 from diphtheria, 61 from measles, 57 from scarlet fever, 46 from "fever" (principally enteric), 34 from whooping-cough, and 2 from small-pox. The lowest death-rates from these diseases were recorded in Bolton, Newcastle-upon-Tyne, Gateshead, and Bristol; and the highest rates in Leeds, Sunderland, Hull, Salford, and Preston. The greatest mortality from measles occurred in Birkenhead, Oldham, Leicester, Huddersfield, West Ham, and Salford; from scarlet fever in Preston; from whooping-cough in Norwich and Swansea; from "fever" in Preston, Plymouth and Sunderland; and from diarrhœa in Wolverhampton, Blackburn, Sunderland, Leeds, Hull, and Preston. The 81 deaths from diphtheria included 50 in London, 5 in West Ham, and 4 in Liverpool. Two fatal cases of small-pox were registered in Halifax, but not one in any other of the thirty-three large towns; two cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 6 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3514, against numbers increasing from 3052 to 3477 on the preceding six Saturdays; 369 new cases were admitted during the week, against 349 and 370 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 152 in the preceding four weeks, further rose to 171 last week, but were 43 below the corrected average. The causes of 50, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Cardiff, Nottingham, Newcastle-upon-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Oldham, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding four weeks from 15·7 to 17·9 per 1000, declined again to 17·1 during the week ending Oct. 1st, but was 0·5 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·6 in Leith and 14·5 in Edinburgh, to 18·8 in Aberdeen and 22·3 in Perth. The 475 deaths in these towns included 24 which were referred to diarrhœa, 18 to measles, 17 to scarlet fever, 10 to diphtheria, 8 to "fever," 7 to whooping-cough, and not one to small-pox. In all, 84 deaths resulted from these principal zymotic diseases, against 70 and 77 in the preceding two weeks. These 84 deaths were equal to an annual rate of 3·0 per 1000, which was 0·4 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had increased from 24 to 27 in the preceding three weeks, declined again to 24 last week, of which 12 occurred in Glasgow and 6 in Dundee. The deaths from measles, which had been 12 in each of the previous two weeks, rose to 18 last week, and included 10 in Edinburgh. The 17 fatal cases of scarlet fever showed a further increase upon the numbers recorded in recent weeks; 12 occurred in Glasgow, 2 in Edinburgh, and 2 in Perth. The deaths referred to diphtheria, which had been 7 and 3 in the preceding two weeks, rose again to 10 last week, and included 6 in Glasgow and 2 in Edinburgh. The 8 fatal cases of "fever" exceeded by 2 the number in the preceding week, and included 5 in Dundee. Of the 7 deaths from whooping-cough 6 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 71 and 66 in the preceding two weeks, rose again last week to 80, and exceeded by 14 the number in the corresponding week of last year. The causes of 45, or more than 9 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding three weeks from 28·3 to 19·7 per 1000, rose again to 21·5 during the week ending Oct. 1st. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 23·1 per 1000, the rate for the same period being 17·1 in London and 16·1 in Edinburgh. The 144 deaths in Dublin during the week under notice showed an increase of 12 upon the number in the preceding week, and included 20 which were referred to diarrhœa, 2 to "fever," 1 to measles, 1 to scarlet fever, 1 to whooping-cough, and not one either to small-pox or diphtheria. In

all, 25 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·7 per 1000, the zymotic death-rate during the same period being 2·2 in London and 3·3 in Edinburgh. The fatal cases of diarrhœa, which had declined from 28 to 15 in the preceding three weeks, rose again to 20 last week. The deaths referred to different forms of "fever," which had been 4 and 2 in the preceding two weeks, were again 2 last week. The 144 deaths registered during the week under notice in Dublin included 30 of infants under one year of age, and 40 of persons aged upwards of sixty years; the deaths of infants showed a considerable decline from those recorded in recent weeks, while those of elderly persons showed an increase. Three inquest cases and 2 deaths from violence were registered; and 38, or more than a fourth, of the deaths occurred in public institutions. The causes of 15, or nearly 11 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel McD. Cuffe has been transferred from Canterbury to Colchester. Brigade-Surgeon-Lieutenant-Colonel O'Farrell, retired pay, has been appointed to the Medical Charge at Leicester. Surgeon-Captain Blackwall has been transferred to Hounslow for duty. Surgeon-Major Gubbins has resumed duty at Woolwich. Surgeon-Captain Donegan has obtained leave from Madras. Surgeon-Captain Greig and Surgeon-Lieutenant Crawford have rejoined at Aldershot, and Surgeon-Captain Windle at Chester. Surgeon-Captain Johnstone has resumed duty at Leith Fort and Surgeon-Captain Will at Piershill. The following Surgeons on Probation, who were successful at the August examination, have arrived at Netley for study:—C. E. Pollock, W. Taylor, Berryman, W. Longhurst, Rivers, F. Symons, Samman, F. Buswell, F. Manyon, and Farmer. Surgeon-Captain Hickson has joined in Dublin for duty and Surgeon-Captain Baylor at Cork. Surgeon-Major Feltham has taken up duty at Pembroke Dock. Surgeon-Major Venour, retired pay, has been appointed to the Medical Charge at Penally. Surgeon-Captain Woods has been transferred from Portsmouth to Alderney. Surgeon-Major Bolster has embarked for India. Surgeon-Captain C. R. Tyrell has succeeded Surgeon-Captain W. G. A. Bedford in command of B Company of the depôt at Aldershot. Surgeon-Lieutenant-Colonel T. Macartney, M.D., has arrived home from Gibraltar.

INDIAN MEDICAL SERVICE.

Surgeon-Major J. W. H. Flanagan, Medical Staff, in medical charge Station Hospital, Kamptee, has been appointed to the medical charge Station Hospital, Aden. Surgeon-Major A. E. J. Croly, Medical Staff, from general duty, Poona, to the medical charge Station Hospital, Kamptee. Brigade-Surgeon-Lieutenant-Colonel G. Thomson has been appointed Principal Medical Officer, Peshawar District. Brigade-Surgeon-Lieutenant-Colonel J. R. Greenhill, Medical Staff, will proceed home for retirement in January next. Surgeon-Colonel C. H. Y. Godwin has been appointed an Administrative Medical Officer in Bengal. The following officers of the Army Medical Staff have been selected to return to England during the ensuing trooping season, on completion of their tour of service in India:—Brigade-Surgeons-Lieutenant-Colonels H. S. Muir, M.D., R. H. Carew, D.S.O., G. J. H. Evatt, M.D., and W. McWatters; Surgeon-Lieutenant-Colonel M. D. O'Connell, M.D., in exchange with Brigade-Surgeon-Lieutenant-Colonel W. S. M. Price; Surgeon-Lieutenant-Colonel H. H. Stokes, M.B.; Surgeon-Captains N. Manders, G. Cree, H. Carr, M.D., C. H. Melville, M.B., B. L. Mills, M.D., G. S. Cardew, M.B., J. B. Wilson, M.D., J. Kearney, M.D., F. A. Saw, M.B., F. W. G. Hall, M.B., A. Kennedy, H. P. G. Elkington, T. G. Lavie, W. R. D. Crooke, M.D., W. P. Squire, C. P. Walker, M.B., and W. Dowman. Surgeon-Captain C. R. M. Green, Officiating Resident Surgeon, Eden Hospital, has been appointed to act as Health Officer of the Port of Calcutta during the absence of Mr. W. Forsyth. Mr. V. L. Watts will officiate as Civil Medical Officer of Burdwan. Surgeon-Captain M. B. Braganza, I.M.S., joined his appointment in the 30th Bombay Infantry (3rd Belooch Regiment) at Loralai. The services of Surgeon-Major A. F. Sargent, I.M.S., 3rd Regiment Bombay Light Infantry, have been placed at the disposal of the Government for employment in the Civil Department. Surgeon-Captain J. P. Barry, M.B., has been appointed Superintendent of Matheran on the expiration of the term of office of Surgeon-Major J. S. Wilkins, D.S.O. Surgeon-Major K. R. Kirtikar, Civil Surgeon, Tanna, acts as Superintendent of the Tanna Gaol, in addition to his own duties, during the absence on privilege leave of Mr. W. W. Wellis. Brigade-Surgeon G. W. McNalty, M.D., Army Medical Staff, will be retired on October 6th on superannuation. Brigade-Surgeon-Lieutenant-Colonel Hughes, Civil Surgeon, Poona, has been appointed to officiate as Principal Medical Officer, Bombay District. Honorary Surgeon W. McEvoy, Bombay Volunteer Rifles, has proceeded on six months' leave to Europe on medical certificate. Surgeon-Captain G. E. Fooks, Indian Medical Service, has been permitted by the Secretary of State for India to return to duty. Surgeon-Lieutenant-Colonel John Edward Charnock Ferris, 1st Bengal Cavalry, will retire from the Service.

DEATHS OF INDIAN MEDICAL OFFICERS.

Surgeon-Major W. H. Cole, 3rd Dragoon Guards, at Murree, of cholera; Surgeon-Captain M. Fowler, Army Medical Staff, at Murree, of cholera; Surgeon-Major F. S. Dimond, 3rd Dragoon Guards at Murree; Surgeon-Major H. Hare, 2nd Battalion Royal Munster Fusiliers, at Cawnpore.

Arrangements have been made for appointing the Presidency Surgeons and the Civil Surgeons in the mofussil as Inspectors under the Indian Factory Act to carry out the sanitary provisions of the Act. Rigid rules for sanitary inspection have, it is said, been drawn up by the Government of India.

NAVAL MEDICAL SERVICE.

Surgeons John Jeffreys Dinnis, M.D., and George Frederick Wales have been promoted to the rank of Staff Surgeons. The following appointments have been made:—Staff Surgeons: J. Cowley to the *Scout* and C. Macauly to the *Castor* (both dated Sept. 30th, 1892). Surgeons: J. Thomas to the *Bellerophon*, J. L. Barrington to the *Melita*, J. Coolison to the *Ruby*, and F. Burns to the *Belleisle* (all dated Oct. 1st, 1892). Surgeon Octavius Fisher, who completed his twelve months as Medical Officer of the Plymouth Division in February last, has been appointed to H.M.S. *Impregnable*, and succeeded by Surgeon W. M. Craig, M.B. Surgeons and Agents: Henry M. Scott at Inniscrone and Pullocheny, and John J. McNulty at Derkinore and Pullendiva (both dated Oct. 5th, 1892).

VOLUNTEER CORPS.

Rifle: 1st (Pembrokeshire) Volunteer Battalion, the Welsh Regiment: Surgeon-Captain G. Griffith, Honorary Surgeon-Major, to be Surgeon-Major (dated Oct. 5th, 1892).

THE BLACK MOUNTAIN EXPEDITION.

The force which, under Major-General Sir William Lockhart, was to proceed against the refractory Black Mountain tribes has already taken the field. It is a large one, consisting of 4000 men with three batteries, in addition to a force of about 2000 strong at Durband, the base of operations. It is composed of two brigades and made up of European and Native troops. The preparations preliminary to an expedition of this nature necessarily create a great deal of work, notwithstanding the experience which the Indian officials have had of small wars of a similar nature, and the organisation of transport and medical arrangements generally must have given rise to a good deal of activity on the part of the medical service. If the Black Mountain and Wana expeditions take place and the Kurram Valley be occupied, there will be between eight and nine thousand troops beyond the frontier.

SURGEON IN ORDINARY TO THE LORD LIEUTENANT IN IRELAND.

Brigade-Surgeon (retired) R. F. Tobin has, as we announced last week, been appointed "Surgeon in Ordinary" to his Excellency the Lord Lieutenant in Ireland. We are glad to congratulate this officer on the appointment. Brigade-Surgeon Tobin, it will be remembered, filled the position of Assistant Professor of Military Surgery at the Army Medical School, Netley, where he did good work. He was selected to fill the post of Field-Surgeon to the Suakin expedition, where his excellent judgment and skill in operative surgery were generally recognised. He subsequently wrote an interesting report of much practical value on the surgical work performed on that occasion. In 1885 he retired from the service and was soon afterwards appointed surgeon to the St. Vincent's Hospital, Dublin, an Examiner and Member of Council of the Royal College of Surgeons, Ireland, and representative Governor of the Catholic University School of Medicine.

THE ANNUAL SANITARY REPORT OF THE PROVINCE OF ASSAM.

We have received a copy of the report of Surgeon-Colonel Costello, the administrative medical officer and sanitary commissioner of Assam, for the year 1891. The report deals with the vital statistics of the province and gives a brief history of the chief diseases which have affected its population during the year. The province is divided into three parts. The valley of Surma with its districts, Cachar and Sylhet, Assam proper, and the Khasi and Jaintia Hills. The total population amounts to 4,881,426. The vital statistics of the province are unreliable and are approximative only. Cholera, small-pox, fevers and the disease described by Dr. G. M. Giles, under the name of kala-azar, which is pathologically allied to the beri-beri of Ceylon, are the principal causes fo the greatest mortality. We have on a previous occasion adverted to the disease known as kala-azar and its pathology. Cholera was very prevalent during the year, as it had previously been during the year 1889 in the Surma Valley, and caused great mortality. Much of the disease was attributed to importation, but the Sanitary Commissioner observes that wherever sanitation was most neglected there the cases were most numerous, and adds that a pure drinking water has been found to be the most efficacious means of ensuring freedom from cholera. Assam has a hot, damp climate and an exuberant vegetation. Its people care little or nothing for sanitation, but the tea planters might surely, if only from a selfish point of view, make things better than they seem to be on their estates.

DR. BRINSLEY NICHOLSON.

Dr. Brinsley Nicholson, who recently died at the age of sixty-eight, served in the Army Medical Service through the China War of 1859–60 and took part in the expedition to Pekin. After his retirement from the service with the rank of Deputy-Inspector General of Hospitals, he devoted himself to the study of the literature of the sixteenth century, and contributed several papers to the New Shakespeare Society.

THE MILITARY RIDE.

We confess we are not at all sorry that this military ride was not received with any favour by the press of this country. No provision was made that the condition of the horses at its termination would be an important element in the matter. The ride is a purposeless undertaking from any military or scientific point of view, and, without some provision of the kind we have referred to, it is certainly not a humane proceeding as far as the unfortunate horses are concerned. Physiologically considered, it imposed relatively little strain upon the endurance of the riders, but a cruel one upon their horses. Long rides as a training for men and horses for the purposes of a campaign may find something to be urged in their favour provided they are undertaken for strengthening and developing the powers of both, but nothing of this kind entered into the present undertaking.

AMENITIES OF FOREIGN SERVICE.

In commenting recently upon the length of the foreign service tour we mentioned the fact that the number of appointments at home appropriated to officers on the Retired List made this grievance all the more keenly felt. It appears to us that if a certain number of changes were made tenable for a fixed period the grievance would be considerably lessened and the public service would be benefited. At the present moment the fixed changes are limited to the hospitals for women and children and a few other appointments. If army medical officers were guaranteed in their posts for a term of years instead of being constantly shifted about, it would be good for them and good for the army at large, and would save expense whilst reconciling them in a measure to their lengthened expatriation.

FOOTBALL CASUALTIES.—The following casualties occurred last week. During a match at Durham, under the Rugby rules, a Jarrow youth collided with another player and was heavily thrown. On removal to the hospital it was found his spine was seriously injured. A member, aged twenty-two, of the Thistle Football Club, Aberdeen, whilst playing in a game at Drumoak Farm, sustained a compound fracture of his left arm. In a match between the Walsall Town Swifts and West Bromwich Albion Clubs the captain of the Walsall club fractured his clavicle.—A youth aged seventeen, in a match between two junior teams at Linthorpe, Middlesbrough, fractured his left arm.

Correspondence.

"Audi alteram partem."

"VACCINATION AND SMALL-POX MORTALITY."

To the Editors of THE LANCET.

SIRS,—Your annotation in THE LANCET of Sept. 24th under the at ove heading raises a point in connexion with this controversy which I think needs emphasising. I refer to the practice of nominal or insufficient vaccination, which, while it conforms to the letter of the Act, engenders in the minds of ignorant people a false sense of security, and is therefore calculated to bring discredit on a most salutary measure. There can be no doubt, I think, that the number of those who are practically "unprotected" from small-pox is increasing year by year to a dangerous extent, and if we could include under this term only such as are "unvaccinated," our opponents would not have the grounds they now have for declaiming against compulsory vaccination. Unfortunately, however, it is only too true that numbers of persons are now growing up who can only show one or perhaps two small marks as the result of their primary vaccination, and who, when exposed to an epidemic of small-pox, will doubtless, as in the past, swell the number of those who are triumphantly cited by anti-vaccinationists as having contracted the disease in spite of having been vaccinated. These gentlemen would, however, do well to note in this respect what they seem wilfully to ignore, but what is abundantly shown by the reports of the various outbreaks of the disease which have occurred from time to time—viz., that whenever small-pox has attacked vaccinated persons the severity of the disease has been in inverse ratio to the number of marks such persons can show. This being the case, there must surely be something radically wrong with an Act which, while imposing upon public vaccinators the production of four vesicles, allows a systematic evasion of its provisions to go on unchecked; and I cannot but think that we are fast losing the advantage of protection from small-pox which that Act was framed to secure for the want of more stringent measures to ensure its efficient administration. It is notorious that at some of the public vaccination stations in our large towns the office of public vaccinator is becoming a sinecure, simply because their work is drifting into the hands of the cheap vendors of advice and medicine who, it may be, from a misplaced sympathy, encourage an evasion of the spirit, if not of the letter, of the Act which must sooner or later lead to direful results. I do not pretend to see clearly how this anomalous state of things is to be remedied; but at least it is not unreasonable to expect that if the public vaccinator has to submit to supervision of his work by Government inspectors, such supervision should also be extended to the large number of irresponsible private vaccinators who are at present quite uncontrolled. Of course, as long as the operation is in the hands of the medical profession at large it would be impossible to inspect every case, but it might at least be made compulsory to state on every certificate the number and size of the vesicles. Would not also a periodical inspection of Board schools afford some means of checking the work of private practitioners among the poorer classes? There is still the question of compulsory revaccination, but I fear I have already trespassed too much on your valuable space. I should, however, be glad to see the whole matter taken up by some of your numerous readers who may be more competent to deal with it. I am, Sirs, yours faithfully,

Bristol, Sept. 29th, 1892. E. H. WARNER, M.D.Edin.

"THE NOTIFICATION OF DISEASE."

To the Editors of THE LANCET.

SIRS,—It is clear that nothing is to be expected from the medical officer of St. George's, Hanover-square, concerning the point I raised in your journal of a fortnight ago, and I do not wish to take up your space further than to make clear the point at issue. Dr. Corfield is unable to go outside the strict letter of the Notification Act, and maintains that no matter how many medical practitioners are called in to see a case of infectious disease, every one of them is bound to

notify. "As a matter of fact," he says, "if only one certifies it to the medical officer of health, the latter is quite satisfied, as he does not want more than one certificate of one case, but if neither of them certifies he is bound to report them all." But it is not a question of the *satisfaction* of the medical officer of health. The question is what is right, and the right is determined in a new Act by the administrators of that Act. Most Acts, if we abide by their letter, are in places doubtful in their meaning, or often enough absurd, and in this case I maintain that to compel three or four individuals to notify when only one certificate is required is absurd, and is not the *intention* of the Act, whatever the wording may be. I further maintain that inasmuch as the medical officers of health are the administrators of the Act they are "not bound to summon everyone who may happen to be called in to see a case of infectious disease." The one in charge of the case is the one who is responsible and none else, and the medical officers of health ought so to work the Act. How am I to know who is the medical officer in twenty or thirty parishes not my own? Moreover, I know, as I said in my former letter, that a large number of medical officers of health interpret the Act in this liberal spirit. So they tell me, and there ought to be some uniformity.

I am, Sirs, yours faithfully,
JAMES F. GOODHART.

Weymouth-street, W., Oct. 3rd, 1892.

"GLYCOSURIA WITH LOW SPECIFIC GRAVITY OF URINE."

To the Editors of THE LANCET.

SIRS,—Dr. Nicholson, writing in your last issue, gives details of a case of this unusual occurrence, and remarks upon the extreme rarity of the condition. Possibly, if the urine were tested for sugar as a routine and not passed over with the remark, which I have sometimes heard, 'Normal (or sub-normal) specific gravity, therefore no sugar" these cases might be found to be not so very rare after all. The following case was seen for the first time on Sept. 25th; it may perhaps interest Dr. Nicholson and others.

Mrs. B——, aged sixty-five, had enjoyed good health until five years ago, when she became suddenly hemiplegic and aphasic. She slowly recovered the use of her limbs, but her speech has remained much impaired up to the present time. A second similar but slighter attack occurred three years later, but she has remained fairly well and able to do her house work up till two or three weeks ago, when she had to give up on account of increasing dyspnœa. Examination showed the following:—Heart slightly hypertrophied; sounds extremely irregular both in force and rhythm; no bruit; arteries rigid and tortuous; lungs slightly emphysematous; abdominal viscera apparently healthy; ankles rather œdematous; veins of legs varicose; urine acid, sp. gr. 1020, no albumen or casts; sugar about 5 gr. in the ounce. I was surprised at these results, and at first inclined to doubt them, as there were no symptoms of diabetes, and I happened to be using for the first time the cupric test pellets introduced by Dr. Pavy; but some freshly made Fehling's solution gave precisely the same result. After three days' treatment by digitalis and diet the urine showed sp. gr. 1010, no albumen or casts, but still a trace of sugar; dyspnœa all but gone. Four days later, though the specific gravity had risen to 1015, not a trace of sugar was present.

I am, Sirs, yours faithfully,
CHARLES CLAYTON, M.R.C.S., L.R.C.P. Lond.

Broadhurst-gardens, N.W., Oct. 3rd, 1892.

To the Editors of THE LANCET.

SIRS,—The condition of urine described at p. 773 is not so extremely rare. Both in THE LANCET and other medical periodicals cases are reported with a specific gravity as low as 1005, *vide* "Medical Digest," Section 332: 1.

I am, Sirs, yours obediently,
RICHARD NEALE, M.D. Lond.

Boundary-road, South Hampstead, N.W., Oct. 3rd, 1892.

To the Editors of THE LANCET.

SIRS,—Seeing an account of a case under the above heading in THE LANCET of Oct. 1st I should like to mention the case of an old gentleman I am now attending; his age is seventy. He has the usual symptoms of diabetes as met with in elderly people: the urine contains abundance of sugar, the test used being Pavy's method, and the sp. gr. is only 1015. Thinking that there might be some error in my manipulations I submitted a sample of the urine to a medical friend, who verified the above statements after using two urinometers. There is no albumen present.—I am, Sirs, yours faithfully,
WALTER BARBER, L.R.C.P.I

Roman-road, Bow, E., Oct. 4th, 1892.

THE PROPAGATION OF CHOLERA.

To the Editors of THE LANCET.

SIRS,—The propagation of cholera by means of human intercommunication is a simple explanation of the extension of the disease, but the theory is not altogether satisfactory, for if it were it would be natural to expect a more frequent visitation of the disease, since the same causes which brought about the present outbreak are in constant existence. To describe cholera as a "filth" disease is to create an erroneous and misleading impression, for the utmost disregard of all the laws of sanitation will not generate cholera any more than any other disease. It is true filth naturally creates a susceptibility and that those who live amidst insanitary surroundings more readily fall victims to any prevalent disease, and therefore every epidemic might and should with equal justice be called a filth disease. Further, we are informed on the highest authority of the probability of a renewed outbreak next spring. How is this temporary abatement explained on the theory of human intercommunication? Again, this theory fails to explain how the epidemic reaches a "maximum of intensity" and then gradually declines, sometimes, however, to rise a second or even a third time. How, too, can the fact be accounted for that occasionally those who live on one side of a street are affected whilst those on the other side escape? The theory of human intercommunication lacks corroboration. As an independent observer I am convinced cholera can only exist under certain meteorological conditions, and that the poison can be, though not necessarily always is, conveyed by the winds, and I maintain that the meteorological theory offers as rational and as simple an explanation of the vagaries of cholera as the theory of human intercommunication.

I am, Sirs, yours obediently,
G. SHERMAN BIGG,
Formerly Staff-Surgeon, Allahabad, India.

Victoria-street, S.W., Oct. 3rd, 1892.

"THE BIRKBECK PANIC: A MANIACAL EXCITEMENT."

To the Editors of THE LANCET.

SIRS,—In your issue of Sept. 24th is an annotation in which the term "maniacal excitement" is applied to the depositors who, under the influence of a scare which turned out to be unfounded, withdrew their money from the Birkbeck Bank. Will you allow me to protest against this application of a term which is a scientific one, connoting definite phenomena that were not present in the case in question, and which ought, I think, to be restricted to its true scientific meaning? By maniacal excitement, as understood in alienism, is meant excitement which (1) is in excess of what is justified by the circumstances in which the individual is placed; and (2) does not subside when the true nature and significance of the circumstances are made clear. In neither of these particulars was the excitement of the Birkbeck depositors maniacal. When they had reason to believe that the money—which in many cases was the result of the toil and saving of a lifetime—was in jeopardy a considerable height of excitement was natural and justifiable; and I do not find in the published accounts that the degree of excitement manifested was so extreme as to be in excess of what might naturally be expected of the normal or average man under such circumstances, supposing the circumstances to be as the depositors imagined. Secondly, when by the prompt payment of all claims the true nature and significance of the circumstances were made clear the excitement at once subsided. Since, therefore, neither of the qualities which are necessary to constitute the excitement maniacal was present in this case, it is, I think, to be regretted that this term should be applied to it.

I am, Sirs, your obedient servant,
CHAS. MERCIER, M.B. Lond., F.R.C.S. Eng.

Catford, Sept. 24th, 1892.

*** We publish Dr. Mercier's letter with pleasure. We are well aware that the removal of the cause of a disorder or

derangement will at any rate tend to the removal of the disorder itself, if it does not entirely remove it. A delusion which "subsides when the true nature and significance of the circumstances are made clear" was none the less a delusion. So may it be with other conditions where morbid mental manifestations existed, whatever names we may choose to apply to them. We are certainly not prepared to pin our faith to definitions in insanity; but as a set-off to Dr. Mercier's definition as given above we quote a definition given by the writer of the article "Mania" in Dr. Hack Tuke's "Dictionary of Psychological Medicine" just issued from the press: "Mania may be defined as being an affection of the mind characterised by an acceleration of the processes connected with the faculty of imagination (perception, association and reproduction), together with emotional exaltation, psycho-motor restlessness and an unstable and excitable condition of the temper."—ED. L.

CENSURE OF A MIDWIFE AT WEST BROMWICH.

To the Editors of THE LANCET.

SIRS,—The *Birmingham Gazette* of August 15th last gives a short account of an inquest held at West Bromwich where a woman who had attended the unlucky subject of it was censured for not sending for a doctor, though it was allowed that she had done her best according to her ignorance. Her total incapacity to perform what she had undertaken was held to be a bar to a verdict of manslaughter, though if she had lost her patient in an attempt to remove a sloughing fibroid, for example, which nature was trying to get rid of, I very much doubt if her ignorance would in that case have been accepted as a valid excuse. There was, apparently, no medical evidence given at the inquiry, but Dr. Lawson, who was called in after death, has given me some details of the case, and he and Dr. Manley, the medical officer of health, have very kindly furnished me with some information as to the state of midwivery in West Bromwich. The patient no doubt died from post-partum hæmorrhage consequent on failure to remove the after-birth; the cord was in the chamber and had evidently been torn off in an attempt to remove it by traction, but the "midwife" had refused to send for medical assistance. I learn that the town, with a population of about 60,000, "is full of women who pretend to know something" and that "the majority of the poorer classes are attended by women who are either professed midwives (not certified) or mere neighbours." "The population is very poor and they cannot all pay fees." With these facts before us that "accidents are rare" and that the mortality from puerperal fever is 2·6 per 1000 births must be looked upon as due to a fortuitous concatenation of circumstances and to the powers of the women, unless we consider that the fact of the medical officer of health knowing and to some extent supervising the "midwives," as shown by his having been directly instrumental in stopping two of them from practising, accounts for it. He considers the women now in practice to be trustworthy.

How little knowledge is required and how much a little supervision might accomplish is here sufficiently indicated, and yet what other branch of the healing art can be compared to it in respect to the trusting innocence with which it is regarded by both midwife and patient—at any rate, in West Bromwich? The administration of the domestic "Gregory's powder" or the insertion of a needle into a boil are alone on the same level. The era of obstruction and proverb which in the early part of this century ushered in the general use of the forceps is still with us. Ignorance in the use of "instruments," self-confidence in manual operations and comparative disregard for the life of the child on the side of the profession, combined with an unreasoning horror on the part of the public, long hindered the mitigating influence of the forceps; so it is at the present time ignorance as to the true state of things amongst the opponents of the Midwives Bill. In a few cases the ignorance appears to be wilful and will not be enlightened. Self-confidence as to our powers of preventing the extreme evils of ignorant midwifery, however late we are called in, forgetful as we are of the terrors and anguish sore, which in such case must precede our arrival; a belief in nature's powers, which gives rise to a passive endurance worthy of a Stoic on the part of the women, all combine to produce—alas, how often!—a tragedy seldom equalled, except by similar cases in fact or fiction. If the indifference and carelessness of the patients of these untrained midwives could for one brief hour be swept away, how long would this want of regard for "our neighbour" exist? We know very well that the torrent of public opinion would soon put a new and healthier face on these old-standing sores. I trust that the work of the Select Committee of the late Parliament will not be allowed to waste in a pigeon-hole, only to become an interesting document for a future and wondering generation.

I am, Sirs, yours faithfully,

Fellows-road, N.W., Sept. 29th, 1892. ROWLAND HUMPHREYS.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Opening of the Winter Session.

THE usual opening of the Medical Faculty, Liverpool University College, with the delivery of an address and the distribution of prizes has been departed from. It was found impossible to complete the new University buildings in time, and it was therefore resolved to postpone the opening ceremony to a later date. But the lectures will all commence this week. The anatomical rooms are open, with a plentiful supply of subjects, and students are already hard at work. With the new infirmary, and the now almost completed university buildings, the local medical school is one of the most complete in the kingdom; but more space is still required in some departments and further improvements are contemplated.

The Northern Hospital.

It is hoped that the City Council will be induced to grant a sum of money as well as a site for the proposed new Northern Hospital. The present building has for a long time past been found to be quite inadequate, and a new one is imperatively demanded.

The Local Intra-mural Cemeteries.

On June 2nd the City Council resolved: "That the Health Committee be instructed to consider the desirability of taking steps for closing St. James's cemetery." In accordance with this the medical officer of health, Dr. Stopford Taylor, reported that the cemetery is conducted according to the regulations provided under the Burials Act, that there are no common or public graves and that no complaints have been made which would justify them in taking legal proceedings. It has been frequently inspected and no nuisance found to exist, nor has there been any evidence of injury to the health of the inhabitants in its immediate neighbourhood. Though no positive injury can be demonstrated to have arisen from it, yet the medical officer would express his entire concurrence in the resolution arrived at many years ago by the Government Commission on intra-mural interments: "that all interments in towns where bodies decompose contribute to the mass of atmospheric impurity which is injurious to public health." The Health Committee have therefore reported that in their opinion it is not at present desirable to take steps for closing the St. James's cemetery. With regard to the necropolis, an intra-mural cemetery situated on the same level as the houses by which it is closely surrounded, Dr. Taylor reported that it ought to be closed except for family graves. St. Mary's cemetery, Kirkdale, a third cemetery which has by the growth of the city passed from being an extra-mural into being an intra-mural one, is now practically closed by the Order in Council, May 10th, 1872, which limits the interments to the burial of the bodies of certain specified relatives in family vaults, walled or earthen graves, subject to strict regulations as to depth &c.

Prevention of Cruelty to Children.

During the month of September the local society took up 78 new and 76 old cases, the former involving the welfare of 102 and the latter that of 88 children. Among the complaints were 7 cases of assaults, 1 of excessive beating, 38 of general neglect, 15 of selling when under age, 21 of begging by day, 61 of begging by night, 6 of selling at night, 23 of exposure, 11 of sleeping out, 7 of dangerous surroundings.

Railway Passengers from Cholera-infected Parts.

A correspondent signing himself "An Eye Witness," and whose statements have been authenticated, has written in a daily paper descriptions of the very filthy condition of some Russian emigrants on their arrival at the Liverpool terminus

of the L. and N.W. Railway. Although it was possible, and even probable, that they might have come from places infected with cholera, the medical officer has not the same powers to deal with them as he has with the crews or passengers of ships arriving in the Mersey. Still every care has been taken to prevent any ill consequences, and the number of such passengers will probably in future be very few until all danger of cholera has passed away.

Oct. 5th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT)

The Mason College.

OCTOBER 1ST was a memorable day in the history of Queen's College. The old associations of the past, the relations of the former buildings and the traditions of the medical school flourishing therein for many years have been uprooted and conveyed to "fresh scenes and pastures new" at Mason College. Not without a passing pang of regret to former students, but full of hope and aspirations for the future, the union of the two colleges has become an accomplished fact. The event had been signalled by preliminaries for some time past, and the occurrence was made the occasion of a large gathering of medical men to hear an address by Sir George Humphry. This was listened to with much interest. The mature wisdom, the ripe learning and practical sagacity, combined with an intimate knowledge of the educational wants of the profession, gave additional emphasis to the address, which called forth hearty applause from the audience. A vote of thanks, proposed by the Mayor and seconded by Mr. Oliver Pemberton, was unanimously accorded. In the evening there was a reception by the president, vice-president and principal, followed by a successful conversazione, to which 2500 invitations were issued. The opening entertainments afford a good augury for the success and prospects of the union thus celebrated.

The Value of Exercise.

In the opinion of most members of the medical profession judicious physical exercise is conducive to well-being and health, and its practice is generally recommended. The exception sometimes proves the rule. At a meeting of the Birchfield Harriers the ex-President of the Board of Trade—Mr. Chamberlain—remarked, "I do not cycle, I do not ride, and I do not walk when I can help it. I do not play cricket and I do not play football. I do not play tennis and I do not even play golf. The fact is that I do not take any exercise at all." At the same time the right hon. gentleman pointed out that the qualities which brought success in such pursuits are those which have distinguished Englishmen throughout the world, and which have made them the most enterprising travellers and explorers. The danger in the present day is not in taking exercise, but in the extremes to which it is sometimes pushed. When competition becomes an element there is a risk of the boundary line of health being overstepped and harm ensuing.

The Midland Medical Society.

The admission of women as members of this Society was settled at the annual meeting held on the 5th inst. Among "the following gentlemen to be balloted for" there was the name of a lady practitioner. The lack of interest in the election was shown by the number present. Out of 322 members representing the Society there were ten present and four officials. The voting showed nine for and two against, and as the candidates, twelve in number, were balloted for *en bloc* they were all elected. The time has passed when the introduction of a question of this kind would have provoked a storm and led to a lively meeting.

Birmingham, Oct. 6th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Lunacy in Northumberland and Durham.

DR. MCDOWALL has issued the report of the Northumberland County Asylum at Morpeth for the past year. This asylum, which was commenced in 1859 with about 130 patients, has now 600 patients under treatment. We have in this report the same story—namely, that the accommodation is nearly exhausted and that further extensions will have to be seriously considered. There is no indication, Dr. McDowall thinks, of any diminution in the demand for accommodation for the insane poor; and this would seem to accord with the facts observed in the neighbouring county of Durham. For instance, we read that there is still a dispute in progress between the Sunderland guardians and the town council as to which authority shall take charge of the imbeciles at the workhouse. The corporation have orders to remove 300 patients from the vast asylum at Sedgefield by June next, and to meet this they are building an asylum at Ryhope to accommodate 350 patients. The guardians, it appears, stand to their resolve to hand over to the corporation the imbeciles now in the workhouse as soon as the new building is finished. The number of patients for which the corporation and guardians are responsible is nearly 400, so there is certain to be a hitch again about this vexed question of accommodation for the insane. I hear that in the Newcastle City Asylum at Coxlodge the accommodation on the female side is now exhausted and that steps are in progress to enlarge the institution very considerably.

Death of Mr. John Russell.

In THE LANCET of last week appeared a notice of the death of Mr. John Russell, M.R.C.S., at Worthing, at the age of sixty-two. Mr. Russell was a native of Durham city, and served his apprenticeship to Mr. Jephson, a well-known practitioner there. He afterwards passed to St. Bartholomew's Hospital, where he remained until he qualified. He came to practise in Newcastle at a very opportune period, two old practitioners at this time retiring—namely, Mr. Annandale and Dr. Bleazley. Mr. Russell very soon made rapid progress in his profession, and in an unusually short time acquired one of the best general practices in Newcastle. He was also appointed surgeon to the infirmary and lecturer on anatomy at the College of Medicine. He was a good surgeon, but always had a reluctance to operate in public. This and his large general practice kept him back in the surgical race. Mr. Russell had charming manners, and was a gentleman of great and varied information. He was very well liked by his professional brethren, and he was indeed honourable in all his dealings. His health began to fail a few years ago, and he decided to retire. He has left a grown-up family, none of whom have followed the profession.

The Supply of Impure Water to Durham Villages.

In consequence of the prevalence of typhoid fever in the Easington district an analysis of the village wells was made and they were found to be seriously contaminated with sewage and other organic matters; indeed, some were shown to receive their supply through a churchyard. The overseers and several prominent householders have been summoned with a view to rectify matters. It seems now that this was a mistake in procedure, as a letter has been received from the Local Government Board stating that the rural sanitary authority was the body responsible for the purity of the water-supply and not the overseers. Orders for the closing of the impure wells have been made by the magistrates. Thirteen wells are more than suspected.

Newcastle on-Tyne, Oct. 6th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Professor Ogston.

PROFESSOR OGSTON'S decision to yield to the great pressure brought to bear upon him to withdraw his resignation as senior surgeon to Aberdeen Royal Infirmary has given unqualified satisfaction to the medical profession, to the students of medicine and to the general public of the north-east of Scotland. This decision was announced to the directors of the institution by the chairman at a meeting held last week.

Aberdeen Royal Infirmary: Opening of the New Hospital by Princess Louise.

On Tuesday, the 4th inst., Princess Louise, accompanied by Princess Beatrice and Prince Henry of Battenberg, visited Aberdeen and formally opened the new buildings of the Royal Infirmary. The principal streets and buildings of the city were profusely decorated, and special preparations were made at the infirmary, a grand stand capable of accommodating 700 people having been erected opposite the main door, where was a raised platform for the Royal party. The Aberdeen company of the Volunteer Medical

Staff corps formed a guard of honour near the platform. The proceedings commenced by the Aberdeen Madrigal Choir singing the National Anthem. Mr. Littlejohn, chairman of directors, presented an address to Princess Louise, and Prince Henry read her reply. After another hymn and a dedicatory prayer by the Rev. Mitford Mitchell, D.D., one of Her Majesty's chaplains, a silver key was presented to the Princess, who thereupon declared the building open. The medical staff were then presented to her Royal Highness, and the nursing staff presented her with a bouquet. Thereafter the Royal party made a minute examination of the wards.

Health of Aberdeen.

On Monday, the 3rd inst., the Aberdeen Town Council decided by sixteen votes to eleven to delay for three months further consideration of the proposed additions to the city fever hospital. Last week 185 cases of zymotic diseases were reported to the medical officer of health, being an increase of 71 as compared with the previous week. This large number is composed mainly of cases of measles, of which there were 130, with 42 cases of scarlet fever.

Edinburgh, Oct. 5th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Reported Case of Cholera.

CONSIDERABLE alarm was caused recently in Banbridge by the rumour, industriously circulated, that a farmer had died quite suddenly from cholera. An investigation, however, showed that the disease in question was not cholera, but it was thought advisable to destroy the patient's bedding and clothing.

Colleges of Physicians and Surgeons: Conjoint Scheme. Five years' Curriculum.

The following regulations will apply for the first year for candidates under the five years' curriculum:—1. Demonstrations and dissections, six months; Theoretical Chemistry, six months; Practical Chemistry, three months; Practical Pharmacy, three months; Physics and Elementary Biology may be studied before or after registration, three months. The subjects of the First Professional Examination will be Chemistry, Physics, Practical Pharmacy, Elementary Biology and Anatomy (bones with attachments of muscles and ligaments, joints). A candidate may take this examination as a whole at one time, or in four parts, but the examination in anatomy not earlier than the end of his first winter session.

Dublin Main Drainage.

In May last year a committee was formed for the purpose of instituting inquiries as to the necessity of a scheme of main drainage for the city of Dublin, and ultimately, in December, 1891, a report was adopted recommending Chatterton's scheme of main drainage. The Local Government Board also held an inquiry and approved of the suggested scheme, and an Act passed giving the sanction of Parliament to the project. The Corporation found that by charging the entire cost of that scheme and adding it to the amount of the city loans there would be scarcely any margin left for carrying out all the other schemes of equal importance, such as the building of artisans' dwellings, which were considered absolutely necessary. The late Government gave exceptional powers to get £100,000, which would not be charged under the Public Health Act to the borrowing powers of the Corporation, and the latter agreed to promote a Bill that the loan should be an exceptional one. On Monday they adopted the following resolution in reference to this matter:—

To consider and, if approved, to adopt a resolution in reference to promoting, and the expense of promoting, a Bill in the next session of Parliament for the purpose of amending, enlarging and defining the powers of the Corporation as to borrowing and application of money borrowed, and for confirming and providing for the expenditure of money on the Dublin Main Drainage and on the extension and improvement of the Dublin Corporation Waterworks, and for such other matters incidental thereto or connected therewith respectively as shall be deemed expedient, and, if approved of, to pass a resolution authorising the Corporation to proceed with the Bill, and to apply the municipal funds or rates, or some or any of them, to the payment of the costs and expenses attending the same.

Meath Hospital.

The introductory lecture on the opening of the winter session was given on Monday by Dr. L. Hepenstal Ormsby. He referred chiefly to the grievances of Irish dispensary medical officers and the exclusion of Irish diplomates from English hospital appointments and the grievances of the Army Medical Service. You will probably, however, report the lecture either in full or in abstract.

International Medical Congress, Rome, 1893.

The following gentlemen have been nominated on the Committee for Ireland: Sir George Porter, Bart., Regius Professor of Surgery, Univ. Dublin; Sir William Stokes, Professor of Surgery, Royal College of Surgeons; E. H. Bennett, M.D., Professor of Surgery, Univ. Dublin; Samuel Gordon, M.D., ex-President Royal Academy of Medicine; W. Thomson, M.D., surgeon to Richmond Hospital; James Cuming, M.D., Professor of Medicine, Queen's College, Belfast; Henry Swanzy, M.D., Surgeon, National Eye Infirmary; J. M. Purser, M.D., Professor of Physiology, Univ. Dublin; Lombe Atthill, M.D.; E. McWeeney, M.D., Professor of Pathology and Bacteriology, Cath. Univ.; C. Nixon, M.D., Professor of Medicine, Cath. Univ.; and D. Cunningham, M.D., Professor of Anatomy, Univ. Dublin.

Death of a Centenarian.

Cornelius Egan, of Dingle, county Cork, died last week at the alleged age of 120 years.

Medical Magistrates.

The Lord Chancellor has appointed Dr. Francis McLaughlin and Dr. Michael O'Kane to the Commission of the Peace for Londonderry city; also Professor Pye, M.D., of the Queen's College, and Mr. Nicholas Grealy for the city of Galway.

Oct. 4th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Extensive Ecchymoses after an Epileptic Attack.

AT the Pau Congress of the French Society for the Advancement of the Sciences, Dr. Cabadé reported the case of a carpenter aged forty, robust and free from cardiac and vascular lesions, who, after an attack of epilepsy which occurred in bed, presented on the morrow subcutaneous extravasations of blood involving the chest from the subclavicular region to the base of the thorax on the right side and to the crest of the ilium on the left side. The arms and the shoulders were also enormously swollen and discoloured from the same cause, the circumference of the former being fifty-four centimetres. At the seats of the ecchymoses the skin was hard, raised and tense, and great pain was complained of in the arms and shoulders, this being probably due to compression of the brachial plexus by the effused blood. The face was not altered. The ecchymoses underwent the usual changes of colour, and it was fully two months before they finally disappeared. The patient's wife, who slept at his side on the night of the attack, heard no fall, and was only conscious of some agitation on the part of her husband. The tongue was bitten, but the temperature was normal. The man had long been subject to attacks of petit mal, and since the seizure above mentioned he has had two others of haut mal, but unaccompanied by ecchymoses. Professor Pitres of Bordeaux states that this case is unique in medical literature, and I communicate it to THE LANCET as being of possible interest to medical jurists.

The Influence of an undue Consumption of Salt on the Development of Leprosy.

The etiological importance of salt fish in the production of leprosy has been insisted on by many dermatologists, notably by Mr. Hutchinson. When years ago I accompanied the Medical Commission of Cape Colony on their visits to the leper establishment on Robben Island I found that the same idea prevailed amongst my colonial *confrères*. Notwithstanding the prevalence of the disease amongst races who do not consume fish, and its absence in many districts where that comestible is largely eaten, the following facts cited by Dr. Azoulay at the Pau Congress appear to lend support to the hypothesis that the excessive consumption of salt (as in salt fish) may encourage the pullulation of Hansen's bacillus. A young Greek, a patient of the late Professor Damaschino at the Laennec Hospital, and suffering from ulcerative and anæsthetic leprosy, stated that since childhood he had been in the habit of eating considerable quantities of salt, which he added to every dish he ate. Another affected with the nodular and mutilating variety of the disease made the same confession, and related how his uncle, with whom he used to inhabit an isolated hut, and

who had died of leprosy, had an inordinate appetite for salt. A leprous patient under M. Vidal's care, whom I remember seeing at St. Louis, had by his bedside a jar of salt, of which he made free use during his meals. This patient had contracted the disease at Calcutta. Another example is furnished by a Frenchman, in whom the disease had developed during a sojourn in the province of Murcia (Spain). All the above-mentioned individuals stated that their craving for salt which they could not overcome, although fully aware of its injurious effect on their leprous troubles, was not shared by the other inhabitants of the districts where their disease had first made its appearance. Dr. Thermes said that in the Antilles, where] leprosy is more frequently met with amongst the blacks than amongst the whites and the half-bloods, the former consume daily salt codfish imported from Newfoundland. M. Regnault had never noticed any particular *penchant* for sodium chloride amongst the leprous in India, but he deemed the subject worthy of investigation.

The Situation of the Respiratory Centre.

We have hitherto been accustomed to regard the integrity of a tract situated in the medulla oblongata between the vaso-motor centre and the calamus scriptorius, and christened by Flourens *nœud vital*, as indispensable for the continuance of the respiratory function. But Dr. Brown-Séquard has brought to the notice of his colleagues of the Académie de Sciences a series of experiments conducted by MM. Gad and Marinescoy on sixty-five dogs, rabbits and cats, which lead them to a different conclusion. These physiologists maintain that the destruction of the various centres regarded by Flourens, Gierke and Mislawsky as centres of respiration does not involve the permanent arrest of that function provided certain operative precautions be taken. They further state that there exists in the lower part of the medulla at some depth from the surface a mass of cells, the destruction of which brings about arrest of respiration, while the stimulation of the same mass determines characteristic changes in the respiratory rhythm. This region, which they are disposed to regard as the true respiratory centre, is not a clearly circumscribed zone, but is composed of a collection of nerve cells scattered on each side of the roots of the ninth nerve. The centrifugal paths along the cord are direct and occupy the anterior radicular zone.

Paris, Oct. 5th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Cholera in Germany.

THE numbers of cholera cases and deaths in Hamburg on the 26th ult. were respectively 70 and 33, on the 27th 58 and 42, on the 28th 70 and 42, on the 29th 33 and 24, on the 30th 47 and 14, on the 1st inst. 43 and 21, and on the 2nd 26 and 12. Professor Gaffky of Giessen, one of Dr. Koch's companions on the famous journey to Egypt and India, in the course of which Dr. Koch discovered the cholera bacillus, has been called to Hamburg to subject the new well-water there to bacteriological tests. Unhealthy dwellings in Hamburg are being emptied with all possible energy. Professor Pettenkofer recommended the rapid demolition of the "Gängeviertal" (Lane Quarter) and of the Stain Strasse, one of the most important streets of the city. London and Paris doctors arrived at Hamburg about the end of last month to study cholera in the barrack hospitals. Professor Klebs, who has tried his new method of treating cholera in Hamburg, writes to the *Frankfurter Zeitung* as follows: "My method is by no means based on the principle of Koch's tuberculin and is therefore not exposed to the prejudice which might be awakened if it were. All that it has in common with tuberculin is that it has to do with the products of bacteria. My anticholerin is a substance isolated from the raw product by chemical means, on the principle on which I obtained tuberculocidin out of tuberculin by the separation and removal of the poisonous ingredients of the cultivations, so as to get the salutary substance pure." An Imperial Commissioner has been appointed for the hygienic control of the Rhine and its affluents. It is credibly stated that the new Hamburg sand-filters, which will cost 7½ million marks (shillings), will be ready next June. The Cholera Commission in the Imperial Office of Health has published its opinion that there is no danger whatever in eating well boiled or roasted fish, crabs and other edible aquatic animals; that sea-fish may be eaten without scruple, if only salted or smoked, that there is no reason to abstain from butter and soft cheese, unless they have been washed with cholera-infected water or prepared in unclean vessels or with dirty hands, and that goods which are forwarded dry are not fitted to carry cholera contagion. "Timid persons," it adds, "can disinfect the boxes, barrels or the like in which the goods have been received with slaked lime or solution of carbolic acid." The death-rates of the German cities in the week which ended on the 17th ult. were as follows: Elberfeld, 16·6 per 1000; Frankfort-on-the-Main, 16·9; Barmen, 18·2; Halle, 19·3; Dresden, 19·4; Bremen, 19·9; Nuremberg, 20·6; Berlin, 21; Stuggart, 21; Strasburg, 21·3; Breslau, 23·4; Krefeld, 24·1; Hanover, 25·2; Dantzic, 26; Munich, 26; Cologne, 26·2; Kœnigsberg, 26·2; Stettin, 27·4; Leipsic, 28·1; Brunswick, 29·4; Aix-la-Chapelle, 29·5; Altona, 30·8; Magdeburg, 31·1; Chemnitz, 33·8; Hamburg and its suburbs, 148·5.

"The Black Death."

A Berlin paper takes the following description from Russian papers:—"The Asiatic cholera and the plague are nothing compared with the terrible epidemic which has been scourging the population of Turkestan for some days past. A report of the Governor-General of Turkestan, which arrived at St. Petersburg on Sept. 23rd, stated that 'the Black Death,' as the Tartars call the devastating epidemic, visited the district of Askabad, which had a population of 30,000, on Sept. 10th and swept away 1303 victims in six days. Against the Black Death, which has been known in Western Asia for a long time past, there is no remedy. Like a death-bringing poisonous desert wind it suddenly attacks whole regions, sweeps away man and beast, and then vanishes as swiftly as it came. It begins with violent ague fits, which last for about an hour, at intervals of five minutes, shaking the patient from head to foot. Then comes intolerable fever heat, the vessels swell, the pulse beats faster and faster and the temperature keeps constantly rising. The patient is seized with convulsions and fainting fits and tortured with terrible pains. Suddenly the limbs become cold and rigid, the patient cannot move, and only utters from time to time a wailing sound that strikes all who hear it with horror. This second stage lasts only from fifteen to twenty minutes, and then, after a short interval, during which heavy breathing is the only sign of life, death comes. Then large black plague-boils cover the body and decomposition sets in in a few minutes."

Berlin, Oct. 4th.

Medical News.

UNIVERSITY OF DURHAM.—FACULTY OF MEDICINE.—At the Convocation held on October 1st the following gentlemen were recommended for the degrees specified:—

Degree of Doctor in Medicine for Practitioners of Fifteen Years' Standing.—William George Creswell, L.R.C.S., L.R.C.P. Edin., and Arthur Bayly Vanes, L.R.C.P., L.R.C.S. Ed., L.S.A.

Doctor of Medicine.—Percy Rutherford Adkins, M.B. Durh.; Robert Crewdson Bennington, M.B., B.S. Dur.; Septimus Bodger, M.B., B.S. Durh.; George William Davis, M.B., B.S. Durh., M.R.C.S., L.R.C.P.; Arthur William Dawson, M.B. Durh., M.R.C.S.; Charles Chester Eardley-Wilmot, M.B., B.S. Durh.; Arthur Hardwick, M.B. Durh.; Charles Egerton Jennings, M.B., B.S. Durh.; Arthur Waldemar Brougham Warde, M.B., B.S. Durh., M.R.C.S., L.R.C.P.; Thomas Watts, M.B., B.S. Durh., M.R.C.P., L.R.C.P.; Robert James Williams, M.B. Durh., M.R.C.S., L.R.C.P.

Bachelor in Medicine (Honours).—Second Class: William Harvey Maidlow, M.R.C.S., L.R.C.P., and Berthold Bezly Thorne Thorne, M.R.C.S. L.R.C.P., St. Bartholomew's Hospital; Francis Herbert Marson, Mason College, Birmingham; James Powell Willis, College of Medicine, Newcastle-upon-Tyne.

Pass List.—Arthur Badock and William James Nathaniel Vincent, M.R.C.S., L.R.C.P., London Hospital; William Henry Bishop, Henry King Dawson, Reginald Green, John Stratford Hall, Willie Oliver, William Ernest Peacock, Samuel Short Whillis, and George James Williams, College of Medicine, Newcastle-upon-Tyne; Ernest Chittenden Bridges, M.R.C.S., L.R.C.P., and Lancelot William Rolleston, St. Bartholomew's Hospital; Hugh Somerville Burniston and Ronald Angus Dalrymple Daniel, L.R.C.S., L.R.C.P. Edin., L.S.A., St. Mary's Hospital; Edward Eden Cass, Yorkshire College, Leeds; Francis William Clark, M.R.C.S., L.R.C.P., D.P.H., and George Elam, M.R.C.S., L.R.C.P., Middlesex Hospital; Thomas James Selby, L.R.C.P., L.R.C.S. Edin., Edinburgh School of Medicine; Harry Shore, Mason College, Birmingham; Hubert Samuel Stockton, M.R.C.S., L.S.A., Charing-cross Hospital.

Bachelor in Surgery.—Arthur Badock and William James Nathaniel Vincent, M.R.C.S., L.R.C.P., London Hospital; William Henry Bishop, Henry King Dawson, Reginald Green, Willie Oliver, William Ernest Peacock, Samuel Short Whillis, James Powell Willis, and George James Williams, College of Medicine, Newcastle-upon-Tyne; Ernest Chittenden Bridges, M.R.C.S., L.R.C.P., William Harvey Maidlow, M.R.C.S., L.R.C.P., Lancelot William Rolleston, and

Berthold Bezly Thorne Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Hugh Somerville Burniston, St. Mary's Hospital; Edward Eden Cass, Yorkshire College, Leeds; George Elam, M.R.C.S., L.R.C.P., Middlesex Hospital; Francis Herbert Marson and Harry Shore, Mason College, Birmingham; Hubert Samuel Stockton, M.R.C.S., L.S.A., Charing-cross Hospital.

ROYAL UNIVERSITY OF IRELAND.—The following have passed the Third Examination in Medicine of the University:—

Upper Pass Division.—Emily E. Eberle, William J. Forbes, Robert J. McKeown, Robert Watt. (All these may present themselves for the further examination for Honours.)

Pass Division.—James C. Adams, Joseph T. Ahern, William T. Allen, Charles Bluet, John G. Clokey, William J. Dargan, Mina L. Dobie, Walter Farrington, Francis Gallagher, Jane S. Gallstly, George W. Griffith, Joseph Lowry, Joseph McGrath, Thomas T. McKendry, Samuel M. Magowan, Douglas C. Moore, William T. Niblock, Martin O'Dea, David A. Porter, John H. Thompson, William D. T. Thompson.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following have passed the Preliminary Examination:—

J. S. Ashe, J. Beasley, R. Berthon, W. S. Canton, J. M. Conway, A. T. Cresswell, W. C. Croly, L. M. C. Cummins, T. Edwards, *F. C. Fitzgerald, R. Fisher, R. A. Fuller, J. Glendinning, James Gordon, O. J. Greene, A. C. Hatchell, T. Jordan, W. Jordan, J. Kean, *S. G. Longwood, J. J. Lynch, F. J. Moore, E. Moynihan, D. J. O'Meara, M. F. O'Sullivan, R. W. Pearson, L. K. Popham, D. Power, J. J. Prescott, T. A. Rooke, W. M. Rowlett, *J. S. Sheil, J. A. Whitla.

Physics.—W. Adrian, J. Clarke, A. O'D. Kelly, F. A. Morris.

* For a portion of the examination only.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.—The scholarship of 60 guineas, open to students of the Universities of Oxford and Cambridge, has been awarded to Mr. Walter S. Sheppard, of Christ's College, Cambridge. The entrance scholarship of 120 guineas has been awarded to Mr. Sidney Herbert Berry and that of 60 guineas to Mr. Alfred Burn.

PRESENTATION OF A MEMORIAL BRASS BY DR. R. SAUNDBY.—A memorial brass bearing the following inscription has just been erected in Saundby Church, Nottinghamshire, in memory of an old inhabitant of the village, from whom, it is stated, the village is named. The inscription runs as follows:—"In loving memory of Robert Saundby, born June 6th, 1810, died January 17th, 1880; and of Emma Sarah, his wife, born November, 1807, died January 28th, 1880. This brass was erected by their only son, Robert Saundby, M.D., F.R.C.P., physician to General Hospital, Birmingham."

UNIVERSITY COLLEGE, LONDON.—Her Majesty's Commissioners for the Exhibition of 1851 have placed at the disposal of the Council of the College the nomination to a scholarship of £150 for the year 1893. The scholarship is intended "to enable students who have passed through a college curriculum to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country." Out of the late Mr. Berridge's charity legacy the trustees have allotted to University College the sum of £10,000 for the promotion of the study of hygiene. The following gentlemen have been recommended for Medical Entrance Exhibitions:—Mr. C. Bolton, £100; Mr. W. R. Battye, £60; Mr. E. P. Chennells, £40.

ENTRANCE SCHOLARSHIPS. — *St. Bartholomew's Hospital:* 1. Open science scholarship of £75 in Chemistry and Physics to Charles Todd, B.A. Cantab., Clare College. 2. Open scholarship in Biology and Physiology of £75 to Walter d'Este Emery, of Mason's and Queen's Colleges, Birmingham. 3. Open science scholarship in Biology, Chemistry and Physics, value £150, to Stanley Bean Atkinson, Prel. Sc. Exam., London. 4. Preliminary scientific exhibition in Biology, Chemistry and Physics, value £50, to Joseph Henry Churchill of City of London School. 5. Jeaffreson exhibition in Classics and Mathematics, value £20, to James Hugh Thursfield, B.A. Oxon., Trinity College.—*St. Thomas's Hospital Medical School:* The first entrance science scholarship—(1) of the value of £150, has been awarded to Mr. A. W. Sikes; (2) of the value of £60, to Mr. C. G. Seligmann.—*Guy's Hospital:* The first entrance scholarship in Arts, value 100 guineas, has been awarded to Arthur William Nourse of Guildford; the second of 50 guineas to Charles J. Thomas of Aberbeeg. The first open scholarship in Science of 125 guineas has been gained by Edmund Ivens Spriggs of Market Harborough; the second of 50 guineas to Frank W. Goldie of Clapham, S.W. Certificates of honour have been awarded to Richard T. Fitz-Hugh of Nottingham, and to Hubert John Starling of Warrington-crescent, W.

MR. C. BOOTH MELLER has been awarded a grant for successful public vaccination in the Cowbridge district of the Bridgend Union. He has also obtained a similar grant as public vaccinator for the Bonvilstone district of the Cardiff Union.

PRESENTATIONS.—On October 3rd the friends and patients of Dr. Alexander Morison presented him with a beautifully illuminated address and a costly service of silver, on the occasion of his leaving Highbury.—Mr. S. T. D. Weston, L.R.C.P., L.M. Edin., M.R.C.S., of Handsworth, has been presented by the railway *employés* of the ambulance class established in that district, with a handsome silver inkstand, suitably inscribed.

THE MAYORALTY OF BRIGHTON.—Last Monday evening a well-attended meeting of the members of the Town Council took place at the Brighton Town Hall to consider as to the selection of a gentleman to fill the office of mayor during the civic year, commencing on Nov. 9th next. The present mayor, Alderman Dr. Ewart, was unanimously invited to retain the office for another year, and in response to the earnest solicitations made to him Dr. Ewart expressed his readiness to accept this invitation. Accordingly the mayor will at the annual meeting in November be nominated once more for the position of Chief Magistrate of Brighton.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—The report for the quarter ending Sept. 30th states that the financial position of the hospital continues to be generally satisfactory. The number of patients remaining in the wards at this date was 254. Dr. Robertson in his address, whilst crediting the success of the hospital treatment to the air of Buxton and the dietary arrangements of the institution, said that very much of the relief obtained must attach to the use of the thermal water, which had been resorted to for the relief of the same diseases from time immemorial.

THE METROPOLITAN ASYLUMS BOARD.—The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board at midnight on Oct. 4th was as follows:—Eastern Hospital, 407 scarlet fever, 64 diphtheria and 42 enteric fever; North-Western Hospital, 399 scarlet fever, 95 diphtheria and 21 enteric fever; Western Hospital, 301 scarlet fever, 47 diphtheria, 2 typhus and 15 enteric fever; South-Western Hospital, 299 scarlet fever, 55 diphtheria and 23 enteric fever; South-Eastern Hospital, 400 scarlet fever, 19 diphtheria and 13 enteric fever; Northern Hospital, 864 scarlet fever and 18 diphtheria; Gore farm Hospital, 772 scarlet fever. On the same date on the hospital ship *Atlas* there were 2 cases of small-pox.

LANCASHIRE AND CHESHIRE SANITARY ASSOCIATION.—The first meeting of the council of this Association was held on Sept. 30th at Manchester, the Rev. H. S. Patterson presiding. The Association has for its object the improvement of the sanitary condition of the homes and business premises of the members. At the present time, it was stated, not one house in 100 was in a safe sanitary condition, and defective drains were the cause, directly and indirectly, of a vast amount of sickness and discomfort, and an enormous number of preventable deaths annually occurred which could be traced to the same cause. The Association enabled members to have the sanitary arrangements of their houses tested and reported upon by a thoroughly reliable and disinterested expert. The Society was entirely a mutual one. If the receipts during the year exceeded the expenses the members would have the benefit of the surplus.

MEDICAL DEFENCE UNION (LIMITED).—At a Council meeting held at the rooms of the British Medical Association on Wednesday, 28th ult. (Mr. Lawson Tait in the chair), the secretaries reported that since the last meeting seventy-four fresh applications for membership had been received and accepted; one application was refused. In the case of a member who was maligned by a co-official of a workhouse the secretaries were instructed to forward to the clerk of the guardians a copy of the letter of the traducer, which "this Council is of opinion is a sufficient vindication of the member's character." To counteract current systematic misrepresentations, the secretaries were instructed to make it more generally known that the London office of the Union was 64, Longridge-road, S.W. It was resolved to report the conduct of a medical man in covering a notorious unqualified practitioner to the General Medical Council and also to his licensing college.

THE PARIS MUNICIPAL COUNCIL AND ENGLISH SANITATION.—As a precautionary measure the Paris Municipal Council has voted a grant of £160 to cover the expenses of a journey to England of delegates appointed to study the system of filtration of the water-supply for large cities, to which the Council-General of the Seine has added its support.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BRUSH, G. C., M.B., C.M. Edin., has been appointed Clinical Assistant to the Shoreditch Infirmary.

BRYCE, THOMAS H., M.A., M.B., F.F.P.S Glasg., has been appointed Extra Dispensary Surgeon to the Western Infirmary, Glasgow.

CARLING, W., M.B., B.C. Camb., has been appointed House Surgeon to Guy's Hospital.

CHAPLIN, T. H. ARNOLD, M.B., M.R.C.P., has been appointed Assistant Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, vice Tylden, deceased.

CLARK, T. F., M.R.C.S., has been appointed Medical Officer for the First Sanitary District of the Dartford Union.

CLUCKIE, N. G., M.B., L.F.P.S. Glasg., has been appointed Oculist for the new Public Eye Dispensary, Dumbarton.

COWAN, M. W. W., M.B., C.M. Edin., has been appointed Medical Officer for the Knightsbridge Sanitary District of the Martley Union, vice Tovey.

FRIER, CHAS., M.B., C.M. Edin., has been appointed House Surgeon to the Royal Surrey County Hospital, Guildford, vice H. P. O. Manning, resigned.

GODSON, A. H., M.B., B.C. Camb., has been appointed House Surgeon to Guy's Hospital.

HIRSCH, CHARLES T. W., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Assistant Government Medical Officer at Fiji, Australasia.

JEWELL, J. W. F., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed House Physician to Guy's Hospital.

LANDON, E. C. B., M.R.C.S., L.R.C.P., has been appointed Assistant House Physician to Guy's Hospital.

LYLE, HENRY, M.R.C.S., has been appointed Honorary Assistant Surgeon to the Cancer and Skin Hospital, Liverpool.

MACNAUGHTON, G. W. F., M.S., M.B. Edin., has been appointed Third Assistant Medical Officer at the Worcester County and City Lunatic Asylum.

MARRIOTT, HYDE, M.B., B.Sc. Lond., has been appointed Honorary Surgeon to the Stockport Infirmary.

MCKAY, J. B., M.D., M.Ch. Irel., has been appointed Medical Officer for the Fifth Sanitary District and the Schools of the Wycombe Union.

NAPIER, JAMES, has been appointed Public Analyst for the County of West Suffolk.

PAINE, W. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the West Green District of Edmonton Union.

PARKINSON, C. H. W., M.R.C.S., D.P.H.R.C.P. Edin., has been appointed Medical Officer of Health to the Wimborne Local Board

PEARCE, J. P., M.R.C.S., has been appointed Medical Officer of Health for the Lewes Urban Sanitary District of the Lewes Union.

SHEEN, A. W., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to Guy's Hospital.

SICHEL, G. T. S., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to Guy's Hospital.

STANFIELD, WM., M.D. St. And., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health, Lees, Manchester.

THOMAS, J. D., M.B., B.C. Camb., has been appointed Assistant House Physician to Guy's Hospital.

YOUNG, F. C., M.B., B.C. Camb., has been appointed House Physician to Guy's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—Lecturer on Organic Chemistry. Minimum remuneration £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist. Salary 100 guineas per annum. (Applications to the Secretary, 24, Finsbury-circus, E.C.)

GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House Surgeon for three years. Salary £200 per annum and quarters. (Applications to the Secretary, General Hospital, Barbadoes.)

HENDON LOCAL BOARD.—Medical Officer of Health for the Urban Sanitary District of Hendon, and to the temporary Infectious Diseases Hospital for one year. Salary as Medical Officer of Health £125 per annum, and for attending the hospital patients (including medicines) £35 per annum. (Apply to the Clerk to the Board, Local Board Office, The Borroughs, Hendon.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. House Physicians.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square.—Four Senior Clinical Assistants for six months.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret-street, Regent-street.—Two Visiting Physicians.

INGHAM INFIRMARY, South Shields.—Senior House Surgeon for two years. Salary £60 per annum, rising to £70, with board and residence.

KENT COUNTY LUNATIC ASYLUM, Barming-heath, near Maidstone.—Third Assistant Medical Officer. Salary £175 per annum, rising £5 per annum up to £200, with furnished quarters, attendance, gas, washing, garden produce and milk. (Applications to Mr. Howlett, 9, King-street, Maidstone.)

LINCOLN ODD FELLOWS' MEDICAL INSTITUTE.—Senior Resident Medical Officer: married. Salary £200 per annum, with midwifery fees, house free, and allowance for coal, gas &c. (Applications to Mr. Coulson, North Parade, Lincoln.)

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Parkplace, Cheetham-hill-road. House Surgeon. Salary £80 per annum, with apartments and board.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—House Physician, House Surgeon, and Assistant House Surgeon for six months. House Physician and House Surgeon will each receive a salary at the rate of £60 per annum.

PRINCESS CHRISTIAN COTTAGE HOSPITAL, Sierra Leone.—A Medical Man. (Apply to the Bishop of Sierra Leone, care of A. E. Schurr, Esq., Harold-hill House, Romford, Essex.)

ROYAL UNITED HOSPITAL, Bath.—House Surgeon for one year. Salary £60 per annum, with board, lodging and washing.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments and board.

ROYAL FREE HOSPITAL, Gray's-inn-road.—Junior Resident Medical Officer for six months. Board and residence provided by the hospital.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House-Surgeon for six months. Board, washing, and lodging provided.

ROYAL INFIRMARY, Dundee.—House Surgeon for twelve months. Salary £60.

Births, Marriages and Deaths.

BIRTHS.

ANDREWS.—On Sept. 29th, the wife of Dr. Launcelot Andrews, at Cheyne-gardens, Chelsea, of a son, who died a few hours after birth.

FAULKNER.—On Sept 30th, at Cavendish-road, Southsea, Hants, the wife of Surgeon-Major Alex. S. Faulkner, Indian Medical Service, of a son.

GARRARD.—On Sept. 27th, at Stancliffe, Bexhill-on-Sea, the wife of George Garrard, M.R.C.S., L.R.C.P., of a son.

HOPKINSON.—On Sept. 30th, at Withington, Manchester, the wife of Albert Hopkinson, M.A., M.B., of a son.

JONES.—On the 29th ult., at Cambridge-gardens, Folkestone, the wife of Arthur Wentworth Jones, M.A., F.C.S., M.R.C.S., L.R.C.P., of a daughter.

SAUER.—On Oct. 2nd, at Gower-street, W.C., the wife of Hans Sauer, M.D., of a daughter.

STREET.—On Sept 30th, at Neemuch, Bombay, the wife of Surgeon Ashton Street, F.R.C.S., Indian Medical Service, of a son

STRUGNELL.—On Oct. 1st, at Brixton-hill, the wife of Walter T. Strugnell, M.D. Lond., M.R.C.S., of a son.

MARRIAGES.

JOHNSTONE—BROWNING.—On Sept. 28th, at Holy Trinity Church, Marylebone, W., by the Rev. E. B. Hartley, A.K.C., Thomas Johnstone, M.A., M.B., C.M., The Limes, Nunhead, London, to Florence Caroline, eldest daughter of the late Thomas Gaul Browning, M.I.C.E., formerly Chief Surveyor of Marylebone.

POWERS—NICOL.—On Oct. 5th, at St George's Church, Edgbaston, by the Rev. T. G. Watton, M.A. (uncle of the bride), assisted by the Rev. H. D. Nicol, B.A., Charles Henry Powers, L.R.C.P. Lond., M.R.C.S. Eng., of Silloth, to E. A. Bessie, only daughter of W. D. Nicol, B.A., of Edgbaston.

VICKERY—COOK.—On Oct. 5th, at St. Luke's, West Norwood, by the Rev. H. W. Cooper, M.A., Vicar, assisted by the Rev. H. Stansfeld Prior, M.A., William Henry Vickery, F.R.C.S. Eng., of Elswick-road, Newcastle-on-Tyne, to Ada Maud, only daughter of Henry T. Cook, Millbrook, West Dulwich, S.E.

DEATHS.

COHEN.—On Sept. 29th, at Formosa-street, Maida-hill, W., Douglas Cohen, M.D., in his 87th year.

CUNNINGHAM.—On Sept. 30th, at Violet Lodge, Bedford, Surg.-General John Phillips Cunningham, M.D., late of 20th Hussars, aged 65.

FRIPP.—On Sept. 27th, at Oak-hill-park, Hampstead, George Downing Fripp, M.D., aged 85.

HASTINGS.—On Sept. 29th, at his residence, Melita, Merton-road, Southsea, Hugh Warren Hastings, M.D., aged 72.

LONGSTAFF.—On Sept. 23rd, at his residence, Butterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year.

SMITH.—On Oct. 2nd, at the Schoolhouse, Lochgoilhead, John Smith, M.A., M.B., C.M., late of Abergavenny, Monmouthshire. Friends please accept this intimation.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths

BOOKS ETC. RECEIVED.

APPLETON, D., & CO., New York.
Transactions of the Thirteenth Annual Meeting of the American Laryngological Association, Sept., 1891. pp. 165.

BAILLIÈRE, TINDALL & COX, King William-street, Strand, London.
A Guide to the Examinations in Sanitary Science. By H. Jones, D.P.H. Camb. 1892. pp. 99.
Napheys's Modern Therapeutics, Medical and Surgical. By A. J.

Smith, M.D., and J. A. Davis, M.D. Vol. I.: General Medicine and Diseases of Children. Ninth Edition. 1892. pp. 1034.
Keep your Mouth Shut. By F. A. A. Smith, M.D., C.M. Glasg. 1892. pp. 49. Price 2s. 6d.
A Manual of Veterinary Physiology. By Veterinary-Captain F. Smith, M.R.C.V.S. 1892. pp. 414. Price 12s. 6d.

BERGMANN, J. F., Wiesbaden.
Wilhelm Roser. Ein Beitrag zur Geschichte der Chirurgie. Von Karl Roser. 1892. pp. 373.

CASSELL & Co., Limited, London.
Breech Loader and How to Use it. By W. W. Greener.

CHURCHILL, J. & A., New Burlington-street, London.
Elements of Human Physiology. By E. H. S. Starting, M.D.Lond., M.R.C.P. 1892. pp. 464.

CONSTABLE, T. & A., Edinburgh.
Atlas of Clinical Medicine. By Byrom Bramwell, M.D. Vol. II., Part I. 1892.

GRIFFIN & Co., Exeter-street, Strand, London.
A Short Manual of Inorganic Chemistry. By A. Dupré, Ph.D., F.R.S., and H. W. Hake, Ph.D., F.C.S. Second Edition. 1892. pp. 365.

HEYWOOD, JOHN, Manchester and London.
Transactions of the Pathological Society of Manchester for the Session 1891-92. Edited by T. N. Kelynack, M.B. Vol. I. pp. 162.

LIVINGSTONE, E. & S., Edinburgh.
Puberty and the Chance of Life. By J. C. Webster, M.D. 1892.

LEA BROTHERS & Co., Philadelphia.
Human Monstrosities. By B. C. Hirst and G. A. Piersol, M.D. Part III. Illustrated. 1892.

LEWIS, H. K., Gower-street, London.
Medical Microscopy. By Frank J. Wethered, M.D. Illustrated. 1892. pp. 412.

LONGMANS, GREEN, & Co., London.
Transactions of the Clinical Society of London. Vol. XXV. 1892.

OLIVER & BOYD, Edinburgh.
On Congenital Obliteration of the Bile Ducts. By John Thomson, M.D. 1892. pp. 52.
A Manual of the Operations of Surgery. By Jos. Bell, M.D., F.R.C.S. Edin. Seventh Edition. Illustrated. 1892. pp. 360. Price 6s.

PENTLAND, YOUNG J., Edinburgh and London.
Regional Anatomy in its relation to Medicine and Surgery. By George McClellan, M.D. Vol. II. Illustrated. 1892. pp. 414.
A System of Practical Therapeutics. Edited by H. A. Hare, M.D., assisted by W. Chrystie, M.D. Vol. III. Illustrated. 1892. pp. 1352.

RENSHAW, HENRY, 356, Strand, London.
Elements of Pharmacy, Materia Medica, and Therapeutics. By Wm. Whitla, M.D. Illustrated. Sixth Edition. 1892. pp. 646.

SAMPSON LOW, MARSTON & Co., London; and D. APPLETON & Co., New York.
An Illustrated Encyclopædic Medical Dictionary. By F. P. Foster, M.D., and others. Vols. I. and II. Illustrated. Cac—Fas.

SWAN SONNENSCHEIN & Co., Paternoster-square, London.
Roaring in Horses; its Pathology and Treatment. By P. J. Cadiot. Translated by T. J. Watt Dollar, M.R.C.V.S. G.B. Illustrated. 1892. pp. 78.

SMITH, ELDER & Co., Waterloo-place, London.
Dictionary of National Biography. Edited by Sidney Lee. Vol. XXXII. Lambe—Leigh. 1892. pp. 439.

UNWIN, T. F., Paternoster-square, London.
Household Nursing. By John Ogle Tunstall, M.D. 1892. pp. 116.

THE SCIENTIFIC PRESS, 140, Strand, London, W.C.
The Art of Feeding the Invalid. By a Medical Practitioner and a Lady Professor of Cookery. pp. 264.

WRIGHT J., & Co., Bristol; and SIMPKIN, MARSHALL & Co., London.
A Primer of the Art of Massage (for Learners). By Dr. S. Dowse. Illustrated. 1892. pp. 151. Price 2s.
Golden Rules of Surgical Practice. By E. H. Fenwick, F.R.C.S. Third Edition. 1892. pp. 67. Price 1s.

Untersuchungen über die in toten tierischen Geweben vom galvanischen Strom bedingten elektrolytischen Veränderungen; von Dr. E. Perregaux (Benno Schwabe, Basel, 1892).—Wintering in Egypt; by F. Peterson, M.D.; reprint (Trow Directory Printing Company, New York, 1892).—Glanders; How it arises and spreads; How to Prevent it, and how to stamp it out; by Wm. Hunting, F.R.C.V.S.; third edition (H. & W. Brown, Fulham-road, London, S.W.); price 6d.—On the Variability of Bacteria and the Development of Races; by J. G. Adami, M.D.; reprint (J. Heywood, Manchester and London, 1892).—Annual Message of Benj. J. Baldwin, M.D., President of the Medical Association of the State of Alabama, Montgomery, April, 1892; reprint.—Medical Communications of the Massachusetts Medical Society, Vol. XV., 1892 (D. Clapp & Son, Boston).—How to Become a Nurse, and how to Succeed; compiled by Honnor Morten (The Scientific Press, 140, Strand, London); price 2s. 6d.—Theine *versus* Tannin; or China Tea *versus* Indian and Ceylon Teas; by S. Cranston, Glasgow (Stuart Cranston, Glasgow, and W. B. Whittingham, London); price 6d.—On an Epidemic Skin Disease; by Thos. D. Savill, M.D. (H. K. Lewis, Gower-street, London, W.C.).—The Danger of the Non-regulation of the Practice of Midwives; by Frederick H. Alderson, M.D. (reprint from the Provincial Medical Journal, Oct., 1892, Leicester).—The Drunkard's Divorce Court; by C. S. Clarke (Burdick, Armitage and Allen, Milwaukee).—Is it a Modern Miracle? by Alfred R. Calhoun (The People's Publishing Company, New York).—The Attendant's Companion; by Chas. Mercier, M.B., F.R.C.S. (J. & A. Churchill, London, 1892); price 1s. 6d.—Descriptive List of Specimens added to the Museum, St. Bartholomew's Hospital, during the year 1892.—The Journal of Mental Science, October, 1892 (J. & A. Churchill, London); price 3s. 6d.—Magazines for October: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

Medical Diary for the ensuing Week.

Monday, October 10.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. R. M. Gunn: External Examination of the Eye.—101, Gt. Russell-street: 8 P.M., Dr. Galloway: Malignant Growths.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. L. C. Parkes: Water Supply.

Tuesday, October 11.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Hutchinson: Cancer of the Skin.—Bethlem Hospital: 2 P.M., Dr. P. Smith: Hysteria, Delirious Mania.—101, Great Russell-street, W.C., 8 P.M.: Dr. Potter: Albuminuria in Pregnancy.

Wednesday, October 12.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Green: Cases in the Wards.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Q. Silcock: Choroidal Affections.

Thursday, October 13.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-street: 4 P.M., Dr. Sturges: Heart Disease in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Ormerod: Ataxia.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. W. R. H. Stewart: Examination of Ear Cases.—Central London Sick Asylum, Mortimer-street, W.: 5.30 P.M., Sir A. B. Garrod: Medical Cases in the Wards.
BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-sq.).—8.30 P.M. Dr. Fancourt Barnes: Vaginal Lithotomy (with specimen).—Mr. Bowreman Jessett: Papillomatous Growth in the Bladder removed by the Supra-pubic Operation (with specimens).

Friday, October 14.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Green: Cases in the Wards.—Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M., Prof. Crookshank: The Microscope (Types of Bacteria).
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. W. H. Brown: A case of Intestinal Obstruction accompanied by Thrombus in the Abdominal Aorta extending down the Iliac Vessels.—Mr. Arbuthnot Lane: A case of Extensive Nævus of the Peritoneum.—Mr. Clutton: A case of Traumatic Aneurysm of the External Iliac Artery in a Boy six years of age.—Mr. Frederic Eve: A case of Cicatricial Stricture of Œsophagus; Œsophagotomy for Removal of Impacted Symonds' Tube, complete division of stricture, no recurrence two years after operation.

Saturday, October 15.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Theo. Hyslop: Mania.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 6th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 30	29·46	S.W.	51	50	102	61	49	·90	Cloudy
Oct. 1	29·39	W.	50	49	66	55	47	·09	Foggy
,, 2	29·47	S.W.	49	48	69	51	44	·44	Raining
,, 3	29·74	S.W.	47	45	95	59	42	·18	Cloudy
,, 4	29·71	S.W.	50	49	95	60	44	·07	Cloudy
,, 5	29·41	S.W.	50	49	65	55	49	·50	Raining
,, 6	29·39	S.E.	50	49	..	53	45	0·1	Foggy

Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

A CURIOUS INCIDENT.

A CURIOUS case occurred recently in the out-patient department of one of the Metropolitan Hospitals. A woman attending for fibrous stricture of the rectum said she had swallowed a sovereign and a half about a fortnight before, "when larking." The surgeon in attendance examined the rectum and removed three sovereigns from the stricture with a pair of forceps at one grip.

Amicus asks for information on the following points:—1. What is the best way to get information respecting medical practice in the United States of America? 2. What prospects are there for an English qualified medical man with capital at command? 3. What are the fees there for advice and medicine, and visiting fees? 4. What are the medical papers of the States and when published?

Dr. W. L. Reid (Glasgow).—We shall be glad if our correspondent will forward the manuscript.

Dr. Clement Dukes.—The matter has had and is still receiving our serious attention.

Mr. John N. Brown.—We do not know the truss spoken of by our correspondent.

"DAMP DETECTORS."

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me if the instruments sold by opticians under the name "damp detectors," for ascertaining dampness in beds, are of any practical use? I am, Sirs, yours truly,

October, 1892. CAUTION.

DOCTORS OF DENTISTRY IN GERMANY.

THE *British Journal of Dental Science* says:—

"Several American dentists in Germany have been fined by the courts for using the title 'Doctor.' The only titles of 'Doctor' recognised in the Empire are 'Doctor of Medicine,' 'Doctor of Law,' 'Doctor of Theology' and 'Doctor of Philosophy.' It has been held by the courts that anyone practising as dentist and using the title 'Doctor,' although he may possess such a diploma as Doctor of Theology, implies that he is a Doctor of Medicine, thus misleading the public. This will prevent those dentists holding the D.D.S. or D.M.D. diplomas calling themselves 'Doctor.'"

Why not here?

Madras.—We do not think it would be right to publish a letter dealing with the subjects in question unless the writer's name were attached thereto.

Mr. S. F. Hoffnung (Pont-street).—We are much obliged for our correspondent's prompt courtesy.

POISONOUS SYMPTOMS CAUSED BY EUCALYPTUS GLOBULUS.

Dr. Benjafield writes from Tasmania:—

"I have been called in to cases of apparent poisoning by eucalyptus globulus, but all of them soon recovered. E. G——, aged two years, climbed up to her mother's store of household medicines, and poured about a teaspoonful of pure oil on some sugar and swallowed it. Within half an hour she began to stagger. Then she became violently sick and lost all power over her legs, so that when attempting to stand she dropped down helpless. A sort of intoxicated torpor then set in. We could awaken her by shaking and calling, but she immediately relapsed. The pulse was quick and strong; the pupils were slightly contracted. This lasted for about three hours, when she woke up perfectly right and ate a good meal. Another child drank an unknown quantity out of a bottle and had the above symptoms very marked, also had great difficulty in breathing; but, by report brought to me from the Bush, where it occurred, she soon recovered. From experience here, where we have never seen Asiatic cholera, I should expect it to be a good germicide and stimulant for this disease. It might safely be given in half-drachm doses, which would quickly saturate the system with the drug; or drachm doses in milk might be injected into the bowel."

Vixen writes to inquire whether he is justified in starting practice on his own account in the village of —— in face of the following facts. 1. For three months during the spring of the present year he had charge of a practice in ——. This practice was too small to sell and too small to clear the expense incurred in continuing it, so it was closed. 2. During these three months our correspondent acted as locum tenens for a fortnight for Dr. A. and for a week in place of Dr. B. of the same village. 3. He then left ——, but returned after an interval of two months, and acted for three weeks as locum tenens for Dr. C. and for a week at the same time for Dr. A. Six weeks have elapsed since he left —— the second time. Drs. A., B. and C. object to his coming to start practice amongst them.

Ambulance (Mold).—Our correspondent should make inquiry of the Medical Department of the War Office on the subject. A letter addressed to the Director-General of the Army Medical Department, 18, Victoria-street, S.W., would no doubt procure him the information.

Dr. J. R. W. White.—The communication was received and is being considered.

Dr. W. Whamond.—We see no reason for the further discussion of the question.

WINTER QUARTERS.

To the Editors of THE LANCET.

SIRS,—I and, no doubt, very many of my professional brethren are just now being daily asked by our patients, who have been perhaps for years past accustomed to winter in the south of France, and to whom it has become almost a necessity to avoid the damp cold of an English winter, whether, in view of the epidemic of cholera now so widely spread in Europe, we can safely advise them to do so this year; but we have no means of getting such information as enables us to answer these inquiries. There are no reports in the daily papers, so far, of any cholera in that part of France. But this affords no certainty of what may really be going on there; for the authorities and others in the various *villes d'hiver* are so much concerned in concealing any such outbreaks at the present moment that they will not voluntarily give any information, or even will give false assurances on the subject. You, Sirs, have no doubt exceptional opportunities of learning the truth about this matter, and you would do us a great kindness if you could give in an early number of THE LANCET such information as you may have, or may be able to obtain, as to the freedom or otherwise from cholera of the various winter stations from Marseilles to Mentone inclusive. Of course, at first glance, as a matter of self-interest in retaining our patients here for the winter, we would rather say, "Do not go abroad this year." But even when fully considered this might not in the end be to our own advantage; for we had better retain our chronic invalid patients for the six summer months only, for perhaps years to come, than have them die on our hands this winter in England.

I am, Sirs, yours obediently,

Oct. 4th, 1892. M.D.

Enquirer would be glad to be informed of any educational establishment where a boy aged eight years, delicate, liable to fits, and microcephalic, could be received for moderate payment. He shows some capability for learning, but is unmanageable at home and quite unfit for ordinary school training.

M.B., M.A. writes:—"The new departure taken by the editors and publishers of 'Kelly's London Medical Directory' in prepaying the reply to their queries is a step in the right direction, and for which they deserve the thanks of the profession."

Crisis.—Reports in the lay press of "cures" for this or that disease, organic or functional, are in general utterly unscientific and appeal only to those who have no knowledge of disease. Our correspondent should discredit the report he refers to.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. E. Armstrong, Newcastle-on-Tyne; Mr. Barber, Bow; Mr. G. Sherman Bigg, London; Dr. J. B. Ball, London; Messrs. Baillière, Tindall and Cox, London; Dr. Broadbent, London; Mr. R. J. Blackham, Rhondda Valley; Mrs. Behnke, London; Dr. Bobardt, Clulow; Dr. Brown-Séquard, Paris; Mr. Birchall, Liverpool; Mr. J. W. Ball, London; Mr. W. M. Banks, Liverpool; Dr. Croke, Beverley; Messrs. Condy and Mitchell, London; Mr. H. Athill Cruttwell; Messrs. Cassell and Co., London; Mr. Brudenell Carter, London; Dr. Edw. Cotterell, London; Mr. Cooke, London; Mr. Clark, Brighton; Messrs. Dawe and Co, London; Dr. Sidney Davies, Plumstead; Dr. Edwin Davies, Wrexham; Surg.-Lieut.-Col. Joshua Duke, Sirdarpore; Lord Ely, Rhyl; Messrs. Farwig and Co., London; Dr. A. Hanbury Frere, Leeds; Mr. Farrington, London; Mr. Ghosal, Assam; Mr. Galton, Bayswater; Mr. W. C. Galton, London; Mr. Thos. Gann, British Honduras; Mr. R. Humphreys, London; Messrs. Hopkinson and Co., Nottingham; Dr. Hubbersty, Sunderland, Dr. Hassall, San Remo; Mr. Heywood, Manchester; Mr. Haig, London; Mr. Sidney Francis Hoffnung, London; Mr. Hodgson, London; Mr. Hegan, London; Mr. R. N. Ingle, Jersey; Mr. A. G. Jones, London; Mr. F. B. Jessett, London; Mr. A. F. Stanley Kent, London; Messrs. Lee and Martin, Birmingham; Mr. Lidbetter, Hornsey; Messrs. Ledger, Smith and Co., London; Mr. Maw, Bradford; Messrs. Mitchell and Co., London; Mr. Muir, London; Mr. Maule, London; Dr. Ewing Marshall, Louisville; Dr. Mackenzie, Edinburgh; Messrs. Margrave Bros., Llanelly; Dr. J. A. McCallum, Cardiff; Mr. J. MacFadyean, London; Mr. Mitchell, Salisbury; Mr. Martin, Sandown; Dr. E. Maurel, Toulouse; Mr. Mainwaring, London; Messrs. Negretti and Zambra, London; Mr. Edmund Owen, London; Messrs. Orridge and Co, London; Dr. L. H. Ormsby, Dublin; Mr. Pimm, London, Mr. Pountney, Norwich; Dr. J. Priestley, Leicester; Mr. Young Pentland, Edinburgh; Mr. W. H. Paine, London; Mr. Bilton Pollard, London; Mr. Palmer, Colchester; Dr. Phillips, Birmingham; Dr. Robertson, Newcastle-on-Tyne; Messrs. Robertson and Scott, Edinburgh; Dr. W. L. Reid, Glasgow; Messrs. Reynolds and Branson, Leeds; M. Rubino, Naples; Dr. Ross, Ashton-under-Lyne; Dr. Ross, Aberdeenshire; Mr. Stenhouse, Glasgow; Messrs. Smith and Sons, Scarborough; Mr. R. Sterling, Newcastle; Mr. Robertson Scott, Edinburgh; Mr. Saunders, Manchester; Messrs. Stent and Sons, Guildford; Sir W. Savory, London; Dr. G. W. Sutherland, Sydney; Mr. Stephens, Preston; Mr. Smith, London; Dr. Herbert Snow, London; Mr. Stallard, Worcester; Mr. Trimmer; Dr. J. J. Trussewitch, St. Petersburg; Dr. Tirard, London; Mr. C. Tayler, London; Mr. Vickers, London; Mr. R. Vinarck, Portaudar; Herr Voss, Hamburg; Mr. Williams, Teddington; Messrs. Wright and Co, Bristol; Mr. Wallace, Weston-super Mare; Messrs. Wilson and Blessley, London; Dr. Shuttleworth, Lancaster; Mr. Wheldon, South Shields; Mr. Warner, Sheffield; Dr. Williams, Mold; Mr. Spencer Watson, London; Dr. E. Warner, Bristol; B., London; *Birmingham Daily Post;* Caution, Northumberland; Crisis; Cortland Wagon Co., London; Galen, London; Grafton Furnishing Co., London; Matron, London; Moses; Madras; M.D., M.A.; Manager, *Sheffield Daily Telegraph;* M.D Lond.; Maltine Co., Bloomsbury; P. N. B., London; Resident, London; R. C. S., London; Secretary, St. Luke's Hospital, London; S. T., London; Secretary, Clinical Hospital for Women, Manchester; S. W., London; S., Preston; Secretary, Guest Hospital, Dudley; Sanitas Co.; Secretary, Royal United Hospital, Bath; T. J. W., London; Veritas, London; Victoria Carriage Works, London; W. A., London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Archer, Wakefield; Mr. Annandale, Co. Durham; Dr. Adam, West Malling; Mr. Buller, Whitchurch; Mr. Birkenhead, Atherstone; Dr. Bourke, London; Mr. Beveridge, Wilnathort, N.B.; Mr. Brackstone, Colwyn Bay; Mr. Brown, Manchester; Mr. Behr, London; Messrs Blondeau et Cie, London; Mr. Branthwaite, Rickmansworth; Mrs. Chandler, Tewkesbury; Mr. Clark, Hammersmith; Mr. Collins, Queensland; Mr. Charles, London; Dr. Deas, Exeter; Mr. David, Rhondda Valley; Dr. Day, London; Dr. Eyton-Jones, Bawtry; Mr. Evans, New Quay, South Wales; Mr. Edwards, Birmingham; Mr. Fiske, Maidstone; Dr. Guillemard, Southsea; Mr. Griffin, Reading; Mr. Gibson, Westmoreland; Mr. Griffith, Bristol; Mr. Hulme, Staffs; Mr. Hill, Barnsbury; Mr. Horne, West Indies; Messrs. Hooper and Co., Pall Mall; Mr. Hughes, Kingsland; Mr. Heatly, Cardiff; Dr. Hollings, Wakefield; Mr. Johnstone, Nunhead-green; Mr. Jones, Merthyr Tydvil; Mr. Jones-Humphreys, North Wales; Mr. Keyworth, Lincoln; Dr. Laughton, Enfield; Dr. Likuaitzky, Johannesberg; M. Laceny, Paris; Mr. Mechan, Erith; Miss Manley, Croydon; Mr. Maitland, South Kensington; Mr. Mahony, Keighley; Mr. Nicol, Bromsgrove; Mr. Paine, Toronto; Mr. Patterson, Durham; Messrs. Porteous and Co., Glasgow; Mr. Pilbear, Brighton; Mr. Polson, Sutherland; Messrs. Roberts and Vivian, Southgate; Messrs. Reynolds and Branson, Bristol; Mr. Robertson, Newcastle-on-Tyne; Mr. Ramsay, Melton Mowbray; Mr. Rice, Sandback; Mr. Skipton, Braunton; Mr. Smyth, Hansworth; Mr. Stocker, London; Dr. Snow, London; Dr. Skrimshire, Holt; Mr. Sutton, Cheshire; Dr. Smith, Coventry; Mr. Thin, Edinburgh; Mr. Tyte, Minchinhampton; Mr. Todd, Selby; Mr. Vaughan, Oldham; Mr. Wilson, London; Messrs. Whitworth and Stuart, Manchester; Mr. Whitehead, Leicester; Mr. Webber, London; Mr. Wilkinson, Dudley; Mr. Walter, Dorset; Mr. Wilson, Doncaster; Mr Walker, Shrewsbury; Mr. White, Ombersley; Alpha, Whitechapel; Aristos, London; Alpha, Birmingham; Assistant, London; B A. C., London; B. B. B., London; Clerk, Leeds Union; Canula, Dublin; C. B. A., London; D. M., London; Deka, London; Deltoid, London; Embryo, London; Forceps, London; F. P., London; G., Dorset; Gradus, London; H. F. A., Paddington; *Herald* Office, Sunderland; Iota, London; J. E., London; Justitia, London; J. W., London; J. T. B., Morecambe; Kasak, London; Lex, London; Lady Superintendent, Manchester Sick Poor Institute; L.R.C.S., London; L. M., London; Medicus, Piccadilly; M. S. A., Leeds; M.R.C.S.E., Bournemouth; Medico, London; M.D, London; Medicus, Cornwall; M. Y., London; Medicus, London; Medicus, Sheffield; M.D., Loughborough; Medicus, Lancs; Offer, London; O., London; Optimus, London; Sigma, London, S. R., London; Secretary, Grimsby and District Hospital; Succession, London; Secretary, Plymouth Borough Asylum; Surgeon, Leicester; Secretary, West Bromwich District Hospital; Secretary, London Throat Hospital; Secretary, Western Infirmary, Glasgow; Tutor, Newcastle-on Tyne, V., London; Walker, Belfast; Zeta, London.

NEWSPAPERS.—*Shipping and Mercantile Gazette, The Philanthropist, The News, City Press, Surrey Advertiser, Reading Mercury, Windsor and Eton Gazette, West Middlesex Standard, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Windsor and Eton Express, Local Government Chronicle, Leeds Mercury, Liverpool Daily Post, Bristol Mercury, Yorkshire Post, Sussex News, Leicester Post, Irish Times, Birmingham Gazette, Weekly Budget, Times of Natal, Cape Times, Perthshire Journal, Eastbourne Gazette, Glasgow Herald, Sunday Times, Builder, Scottish Leader, Wolverhampton Express, Health, Sala's Journal, Law Journal, Architect, Carlisle Journal, Catholic Times, Madras Mail, Statesman (Calcutta), Fifeshire Advertiser, Le Temps (Paris), West Middlesex Advertiser, Times of India, Pioneer Mail, Mining Journal, Insurance Record, Isle of Man Times, Sanitary Record, Sunday States Times (New Orleans), North Wales Guardian, Oldham Daily Standard, Brighton Examiner, Yorkshire Herald, Derby Gazette, The National Bulletin, Public Health, &c.*, have been received.

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Agent for the Advertisement Department in France—J. ASTIER, 65, Rue Caumartin, Paris.

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Zyminised Meat and Milk Suppositories are supplied to the Medical Profession in boxes of 1 dozen at 1/10 per box. Retail 2/6.

ZYMINE (Fairchild).

ZYMINE is rightly considered as one of the greatest advances in modern medicine. It affords a natural and most efficacious means for the treatment of intestinal dyspepsia. It is our only therapeutical resource in many forms of indigestion and in occlusion of the pancreatic duct, &c. It is our only means of pre-digesting all kinds of foods, administering them fresh and palatable, and in such form that they will not prove a burden upon digestion. It is the only agent which does for the digestive organs what they are unable to do for themselves. It has revolutionised infant dietetics, inasmuch as its addition to cows' milk renders that fluid as easily digested as mothers' milk after the lapse of twenty minutes.

Zymine contains no diluent, such as starch or milk sugar, which additions do not in the least assist its digestive action, and are added simply to increase the *bulk and profit.* Zymine must not be confounded with commercial Pancreatine—the latter is more expensive and less active.

Zymine supplied to the Medical Profession in ¼ oz. and 1 oz. bottles at 1/8 and 5/- each. Retail 2/- and 6/-.

ZYMINE "TABLOIDS."

Where the physician desires to carry on or promote the digestive process in the duodenum, there are Zymine and Zymine Compound "Tabloids." No evidence whatever is forthcoming that a pancreatic powder or liquid will exert any action in the intestine, while the coating (comparatively insoluble in the gastric juice) on the Zymine "Tabloids" affords an entirely different prospect. The great activity of Zymine seems to endow it with special usefulness where the intestinal and pancreatic ferment principles are weak or perverted. Of course, it is in no sense claimed that Zymine is curative; it is only claimed that it is decidedly active in digesting foods in alkaline media—e.g., as in the intestinal secretions.

The Zymine "Tabloids" contain 3 gr. each, and the dose is from one to three "Tabloids" an hour or so after meals.

Zymine "Tabloids" supplied to the Medical Profession in bottles of 25 and 100, at 1s. 6d. and 4s. each. Retail 2s. and 5s. each.

GLYCERINUM PEPTICUM (Fairchild).

This Glycerine extract of the peptic ferment possesses every requisite of a concentrated solution of pepsin. It is highly active, uniform, and stable, devoid of objectionable odour or taste, is freely miscible without precipitation or cloudiness with all proper menstrua or media, is notably free from all the disagreeable qualities and characteristics of peptone solutions. It contains no alcohol or antiseptics other than Glycerine of the purest quality. Twelve minims will be found equivalent in activity to one grain of the best pure pepsin in a dry form that is to be found in the market. It will be found upon comparative test of much greater strength than any fluid preparation of pepsin known. It mixes freely, without precipitation or cloudiness, with all clear liquids with which pepsin is or should be employed. Pharmacists will appreciate the facility with which the usual fluid preparations of pepsin may, by means of the Glycerinum Pepticum, be quickly and economically prepared, as there is no loss by filtration. It is agreeable to take, and may be mixed with pure water, wine, or with any of the usual vehicles.

Glycerinum Pepticum supplied to the Medical Profession in 4 oz. bottles, at 1s. 10d. each. Retail 2s. 6d.

PEPSIN (Fairchild).

IN SCALES OR POWDER.

Possesses the highest standard of Activity and Permanency.

Numbers of physicians have been disappointed in the action of commercial pepsins. Dr. CORVISART of Paris first suggested the employment of the gastric digestive enzyme in enfeebled digestion, and doubtless, as originally prepared, pepsin was found to be of much benefit as an aid to digestion. The immense subsequent demand for pepsin led to the adoption of varying processes for the preparation of the drug. Numbers of these were found faulty; some were evaporated down at a high temperature and thus destroyed; others who succeeded in obtaining a comparatively active pepsin were tempted to employ various *diluents*—notably, amongst others, starch and milk sugar. The Pepsin prepared by the Fairchild process possesses ten times the proteolytic power of commercial pepsins when subjected to the Pharmacopœia test—i.e., one grain will digest 1000 grains of coagulated albumen instead of 100 grains only. *Those pharmacists anxious to obtain a pepsin of the greatest activity for the preparation of wine, elixir, or solution should order the Fairchild's Pepsin in scales or powder. It is ten times as powerful a digestive agent and is not more expensive than ordinary commercial pepsins.*

Dr. BURNEY YEO says: "Pepsin is largely given to promote the activity of the stomach itself. For this purpose many preparations exist, *but some are very uncertain, and many probably quite inert.*"

The EDINBURGH MEDICAL JOURNAL writes: "Pepsin (Fairchild) excels all other preparations of Pepsin with which we are acquainted."

Pepsin, either in scales or powder, may be given spread on bread-and-butter or in the convenient form of sugar-coated "Tabloids"; each "Tabloid" contains one grain of pepsin with the appropriate quantity of acid and aromatics.

Supplied to the Profession in bottles containing 25 and 100 "Tabloids," at 1/2 and 3/6 each. Retail 1/6 and 4/6.

Pepsin in scales or powder supplied to the Profession in ¼-oz. and 1-oz bottles, at 1/8 and 5/- each. Retail 2/- and 6/-.

PEPTONISING POWDERS (Fairchild)

Are packed in corked tubes, each containing the required quantities of zymine and bicarbonate of soda to peptonise a pint of milk or beef-tea. Even the most inexperienced maid can peptonise foods with these powders.

Foods peptonised with zymine are sweet and palatable, are ready for immediate absorption, are soothing and nutritious, and are absolutely indispensable to the proper treatment of gastric and intestinal diseases.

Zymine is frequently prescribed internally in intestinal dyspepsia in the form of "Tabloids." Each "Tabloid" contains 3 grains of zymine; and when taken with meals they promote perfect absorption of the foods and relieve the sense of oppression and malaise usually present in such cases.

Supplied to the Medical Profession in boxes containing 1 dozen Tubes at 1/2 per box. Retail 1/6.

Zymine "Tabloids" and Zymine Comp. "Tabloids," 25 and 100 in bottles, 1/6 and 4/-. Retail 2/- and 5/-.

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